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**Fractures of the UK regulation and supervision of  
Central Counterparties in the OTC Derivatives Market**

**by**

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A thesis submitted in partial fulfilment of the requirements for the  
degree of  
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## **Declaration**

This work or any part thereof has not previously been presented to the University or to any other body whether for the purposes of assessment, publication or for any other purpose. Save for any express acknowledgements, references and / or bibliographies cited in the work, I confirm that the intellectual content of the work is the result of my own efforts and of no other person. I confirm that no material arising from work on the thesis has appeared in print before the submission or examination. An early and different version of the first chapter of the thesis was published in electronic format as a Warwick School of Law Research Paper No. 2015/19.

## **Abstract**

The OTC derivatives market has captured the attention of regulators after the Global Financial Crisis due to the risk it poses to financial stability. Under the post-crisis regulatory reform the concentration of business, and risks, among a few major players is changed by the concentration of a large portion of transactions in the new market infrastructures, the Central Counterparties (CCPs). This work, for the first time, analyses the regulatory response of the United Kingdom, the largest centre of OTC derivatives transactions, and highlights its shortcomings or ‘fractures’. The work uses a normative risk-based approach to regulation as a methodological lens to analyse the UK regime of CCPs in the OTC derivatives market (OTCDM). It is specifically focused on prudential supervision and conduct of business rules governing OTC derivatives transactions and the move towards enhancing the use of central clearing. The resulting analysis, from a normative risk based approach, suggests that the UK regime for CCPs does not fulfil what would be expected if a coherent risk based approach were taken. The main contribution of this work is to highlight the risk based ‘fractures’ affecting the regulation and supervision of CCPs in the OTCDM. The absence of a coherent conduct of business regime of CCPs, the insufficient legal framework underpinning CCPs’ operations, the lack of a Special Resolution Regime for CCPs are some notable absences. However the failure to rule ‘Innovation Risk’ from a risk based approach raises material concerns. It is therefore argued that these fractures hinder the achievement of the regulatory objectives. The regulator’s objective is to enhance the stability of the OTCDM by ensuring the safety and soundness of Central Counterparties CCPs.

## Abbreviations

AIG	American Insurance Group
APR	Approved Persons Regime
BoE	Bank of England
CCPs	Central Counterparties
CDO	Collateralized Debt Obligations
CDS	Credit Default Swaps
CEM	Current Exposure Method
CMA	Competition and Markets Authority
CMs	Clearing Members
CPMI	Committee on Payments and Market Infrastructures
CRD IV	Capital Requirements Directive IV
EMIR	European Market Infrastructure Regulation
FCA	Financial Conduct Authority
FMI	Financial Market Infrastructures
FPC	Financial Policy Committee
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSMA	Financial Services and Markets Act
G-SIB	Global Systemically Important Banks
GFC	Global Financial Crisis
IAIS	International Association of Insurance Supervisors
IM	Initial Margin
IOSCO	International Organization of Securities Commissions
ISDA	International Swaps and Derivatives Association
Kccp	CCP's hypothetical capital requirement
MiFID (I & II)	Market and Financial Instruments Directive (I & II)
MiFIR	Market and Financial Instruments Regulation
MPBR	More Principles Based Regulation
MRMAP	Management Responsibility Map
NED	Non-Executive Directors
OTCDM	OTC Derivatives Market
PBR	Principles Based Regulation
PBs	Prescribed Responsibilities
PFE	Potential Future Exposure
PFMIs	Principles Financial Market Infrastructures
PRA	Prudential Regulation Authority
RCH	Recognised Clearing Houses
RMBS	Residential Mortgage-backed Securities
RTS	Regulatory Technical Standards

SIFIs	Systemically Important Financial Institutions
SM&CR	Senior Managers and Certification Regime
SoR	Statements of Responsibility
SROs	Self-Regulatory Organisations
SYSC	Senior Management Arrangements, Systems and Controls
TRs	Trade Repositories

## Cases

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*Caiola v. Citibank* 295 F.3d 312, 312 (2d Cir. 2002).

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*Woolwich Equitable Building Society v. IRC* [1992] 3 All ER 737

## INTRODUCTION

Following the Global Financial Crisis regulators are committed to reduce the likelihood and severity of future crisis. In the area of financial derivatives the regulation is focused on increasing transparency, strengthening market infrastructure and reducing systemic risk. The post-crisis regulatory reforms frame the object of study of this research, which is the major transformation of regulation and supervision of the OTC derivatives market in the United Kingdom, and the consequent move towards the regulation of Central Counterparties (CCPs), as new intermediaries of the market. This work serves as a foundational discussion because it reveals that the current UK regime for CCPs does not fulfil what would be expected if a coherent risk based approach were taken. It highlights, for the first time, the shortcomings or ‘fractures’ of the UK regime of CCPs in the OTC derivatives market. The central hypothesis of this research is that the design and implementation of a coherent risk-based regime would allow UK regulators to use the approach as the ‘route-map’ of the regulation and supervision of CCPs. Coherence is reached when a risk-based regime integrates the perceptions and attitudes of regulators and firms related to the risks manufactured in the OTC derivatives market, and how they should be managed and controlled. The work uses a normative risk-based approach to regulation as a methodological lens to analyse the regime. It specifically focuses on prudential supervision and conduct of business rules governing CCPs in the OTC derivatives market.

This work is based, principally, on primary sources of information and it performs an empirical analysis of the UK regime of Central Counterparties in the OTC derivatives market. In order to better understand the operation of CCPs in the OTCDM and the UK regime, this thesis draws from different empirical sources, including interviews with regulators at the Bank of England and the Financial Conduct Authority, discussions with officials of international standard setting bodies as IOSCO, interviews with members of CCPs recognised and authorised in the UK, as well as the review of the literature on OTC derivatives markets reform and functioning of CCPs. This work is a unique contribution to

the field because it integrates a legal analysis of the regime of CCPs, with sociological perspectives of risk and its role in ‘manufactured risk’ markets, as in the OTC derivatives market. It also includes broad-policy considerations, such as financial stability, to analyse the reasons that render prudential and conduct of business supervision necessary. The main contribution of this work is to highlight, from a theoretical perspective, the risk-based ‘fractures’ affecting the regulation and supervision of CCPs in the OTC derivatives market.

The work of the Bank of England to ensure the safety and soundness of CCPs and, thereby, the stability of the OTC derivatives market is yet to be completed. During the first three years of the regime, the Bank of England has set out some key supervisory pillars, anticipating that ‘its supervisory effort is based on its assessment of where risks to financial stability are greatest’<sup>1</sup>. The supervision lies on systemic risk management and has been focused on the areas of management of credit, liquidity and operational risk, and continuity of service and adequate rules in case of clearing members’ default. In this context, this work identifies areas that have been overlooked by regulators.

The findings of this research exemplify the ‘fractures’ of the UK regime of CCPs in the OTCDM. The reason to call these shortcomings fractures is the etymology of the word. Fracture comes from the latin verb ‘*frangere*’ and means ‘to break’. Fracture is the cracking or breaking of a hard object or material. In the UK regime of CCPs in the OTCDM, the fractures are breaking the unity and completeness of the regulatory objective of enhancing the stability of the market. The absence of a coherent conduct of business regime of CCPs, the insufficient legal framework underpinning CCPs’ operations, the lack of a Special Resolution Regime for CCPs, and the failure to rule ‘Innovation Risk’ are fractures that hinder the achievement of regulatory objectives. The regulator’s objective is to enhance the stability of the OTCDM by ensuring the safety and soundness of Central Counterparties.

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<sup>1</sup> Bank of England, ‘The Bank of England’s approach to the supervision of financial market infrastructures (April 2013) 7

Chapter 1 explores the risk-based approach to regulation. This chapter is the framework to analyse the UK regime of CCPs in the OTC derivatives market. It highlights the role that risk has in society and in regulation. It emphasises that financial regulators are called to recognise that risks and uncertainties, although at different levels, should inform the regulatory process. It argues the importance of cooperation between regulators and regulated firms. The cooperation implies not only information sharing, but also the integration between different perspectives of risks in the design and implementation of the regime. Following this line of thought, this chapter provides the grounds to argue that the OTC derivatives market is a centre of ‘manufactured risks’. It analyses how the functioning of the market, the role of CCPs, and the regime is continuously manufacturing risks. Then, the chapter emphasises the core elements, limits and shortcomings of risk-based regimes, and explores the UK model of risk-based approach to regulation and supervision of the OTC derivatives markets.

Financial derivatives play an important role in capital markets and in general in the broader economy. Derivatives contracts are the result of combining certain features that give the counterparties the possibility to look for capital raising and management of credit risk. The discussion in Chapter 2 highlights the role of ‘manufactured risks’ in the OTC derivatives market. It also considers the role OTC derivatives played in the Global Financial Crisis. It highlights the regulators’ aim to reduce systemic risk and the need to oversee macro and micro-prudential matters in the markets compromised during the crisis. This chapter also explores the reasons to regulate the OTC derivatives market and the adoption of Central Counterparties. In this context, it explains the UK regulatory response to the Global Financial Crisis, and the introduction of an approach to regulation that combines some elements of risk-based and judgment-based regimes.

Chapter 3 explores the approach and the first of the shortcomings or fractures of the UK regime of Central Counterparties (CCPs) in the OTC derivatives market. This chapter uses the risk-based regulation to assess the regime. It attempts to examine the two main pillars of prudential supervision and

conduct of business. The examination of the regime focuses initially on identifying the motivations to implementing CCPs in the OTCDM, and the Bank of England's regulatory priorities in the first years of implementation of the regime, which are guided by the CPMI-IOSCO Principles for Financial Market Infrastructures. The resulting analysis suggests that the UK regime of CCPs in the OTCDM is affected by two drawbacks of risk-based regimes, namely: the absence of an organisational culture in implementing risk-based regulation; and how the use of risk-based regulation is creating 'manufactured risks'. Thus, there are some shortcomings or 'fractures' that UK regulators should address. The first fracture is the inexistence of a conduct of business regime for CCPs. The limited role of the existing rules of conduct of business reveals the need of a coherent regime applicable to CCPs in the OTCDM. The fracture goes beyond the lack of design of the regime; it also affects the exercise of enforcement powers. Under the current regime, it is not clear whether the Bank of England or the Financial Conduct Authority could sanction a CCP for the breach of a conduct of business rule.

The adoption of risk-based approach to regulation is useful when regulating systemically important financial institutions, as is the case of CCPs in the OTC derivatives market. However, it is in the nature of risk-based approach that regulators deliberately overlook certain risks when designing regimes. The attention of the Bank of England has been focused on managing credit, liquidity and operational risks faced by CCPs. As a result of such a prioritization of risks and the related supervisory actions, the Bank has abandoned other areas central to the regulation of CCPs. Following this analysis, chapter 4 explores two more fractures, namely: the insufficient legal framework underpinning CCPs' operations and the inexistence of a Special Resolution Regime for CCPs. Regarding the insufficient legal framework underpinning CCPs' operations, the chapter exposes the issues rising from the contractual relationship between CCPs and their clearing members (CMs). In particular, it discusses how regulators in the UK have conferred a high level of discretion on CCPs related to the performance of their obligations, which in turn diminishes CMs and CMs' clients' rights. It puts forward the argument that a Duty of Care predicable of CCPs should be considered in order to rebalance the relationship between CCPs

and their members.

It might be anticipated that the focus of the Bank of England on ensuring the safety and soundness of CCPs has resulted in a complete regime. However, the work of the Bank of England has been centered exclusively on strengthening loss allocation and recovery rules for CCPs. Although the remarkable progress concerning the recovery regime is a plausible advance to ensure the resilience of CCPs, there is no special regime for the resolution of CCPs. The resolution regime currently applicable to the UK's CCPs is contained in the Banking Act 2009. It was originally designed for banks, and some aspects of such resolution framework are not suitable for CCPs. The benchmark set out in the Financial Stability Board's Key Attributes for Effective Resolution Regimes guide the Special Resolution Regime for CCPs. This work explores the reasons for adopting special rules for the resolution of CCPs, and emphasises the potential issues that regulators might face when designing and implementing the regime.

Chapter 5 highlights how the UK regime of CCPs in the OTCDM is not considering the 'innovation risk'. In a market that exists and evolves by means of innovation, regulators should be aware of the risk it poses to the achievement of their regulatory objectives. Innovation risk can take different forms and might challenge regulators in several ways. The discussion concerning the role of risk, uncertainties and 'manufactured risks' illustrates the rationale of innovation, and how it affects the effectiveness of the regime. It also emphasises the importance of a coordinated approach between regulators and CCPs. In particular, how the innovative or creative compliance of the regime might frustrate the expected outcomes. This work refers to the risk that CCPs, in order to remain competitive, might design and offer alternative products to its clients, products that will escape the mandatory clearing requirement. This situation reveals the potential conflict of interests and the position of influence that Clearing Members may have in front of the governance of the CCPs. As the issues posed by financial innovation are different from each other, so are the potential solutions. This research explores the suitability of governance rules to solve, at least partially, the issues related to the conflicting interests that converge within the CCP. This chapter also explains how creative compliance is likely to lead some of the

unintended consequences of the CCP's regime. It refers to the potential dangers coming from the innovative financial techniques OTCDM participants will use to meet the high quality collateral requirements of CCPs, and the novel uses of portfolio compression.

## **Chapter 1**

### **The Risk-Based Approach to Regulation**

#### **1.1 Introduction**

The question of whether risk-based regulation is an efficient approach to the regime of Central Counterparties (CCPs) in the OTC derivatives market (OTCDM) is the principal consideration of this chapter. The discussions below will first attempt to throw some light on the role of risk in society and in regulation. They explain the way risk-based regulation operates. These discussions highlight the benefits, limits and complexities tied to the adoption of risk-based approaches to regulation. The core of the study in this chapter is the analysis concerning the parameters that risk-based regulation offers to assess the current regime of Central Counterparties in the OTCDM in the UK.

This chapter is the framework of the regulatory analysis of this research. The research explores the UK risk-based model of regulation and supervision governing CCPs in the OTCDM. It highlights the importance of the increasing tendency to use Central Counterparties (CCPs)<sup>1</sup>. It is specially focused on the study of prudential supervision and conduct of business rules. The core features of the UK risk-based<sup>2</sup> model will then be used to identify and assess the risks to the regulator's objectives<sup>3</sup> that are posed by the Central Counterparties CCPs, and to address those using various regulatory tools<sup>4</sup>.

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<sup>1</sup> Daniel Heller & Nicholas Vause, 'Expansion of Central Clearing' (2011) BIS Q. REV. 67, 68 June.

<sup>2</sup> Robert Baldwin and Julia Black, 'Really Responsive Regulation' (2008) 71 MLR, 59.

<sup>3</sup> 'The first challenge for any risk-based regulator is to identify the risks to its achieving its objectives. These are the risks that it will evaluate and seek to control'. Robert Baldwin, Martin Cave and Martin Lodge, *Understanding Regulation* (OUP 2012) 283; Stuart Bazley and Andrew Haynes, *Financial Services Authority regulation and risk-based compliance*, (2nd edn, Haywards Heath : Tottel, c2007).

<sup>4</sup> An illustrative example of comparative analysis in the area of risk based regulation. Julia Black, 'The Development of Risk Based Regulation in Financial Services: Canada, the UK and Australia A Research Report' (2004) ESRC Centre for the Analysis of Risk and Regulation London School of Economics and Political Science , September



Different models of regulation could be considered to analyse the new UK approach. However, this research uses the risk-based regulation – adopted in the UK – as a method of analysis of the regime of CCPs in the OTCDM. The reason is that risk-based regulation is broad and feasible enough in the time framework of this research. Furthermore, this method is interesting, because it exposes the reality that there might be a limit on the resources that can be spent on controlling certain types of risk<sup>5</sup>. In addition, the method allows the analysis of how the studied regime is satisfying expectations regarding transparency and accountability<sup>6</sup>.

It is particularly interesting to use the risk-based approach to analyse the UK regulation of CCPs. Indeed, a general concern after the Global Financial Crisis<sup>7</sup> was that risk-based regulation tends to be operated in a manner that places too much emphasis on “individual sites”<sup>8</sup> and that, as a result, this approach is slow to come to terms with systemic and cumulative risks<sup>9</sup>. Therefore, this discussion brings into question the emphasis that has been placed on the regulation of CCPs in the UK. This is to analyse whether the use of risk-based approach is restricting rather than ensuring that the UK regime is not only focused on the safety and soundness of CCPs as -‘individual sites’- but simultaneously promotes the stability of the OTCDM. In other words is risk-based regulation the appropriate approach for ensuring the effective management of systemic risk<sup>10</sup> in the OTCDM? Does it need to be complemented with other strategies of regulation? If so what would those strategies likely to be?

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<http://www.lse.ac.uk/collections/law/staff%20publications%20full%20text/black/risk%20based%20regulation%20in%20financial%20services.pdf> accessed 21<sup>st</sup> January 2016.

<sup>5</sup> Baldwin, Cave and Lodge, *Understanding Regulation* (n 3) 293.

<sup>6</sup> *ibid.*

<sup>7</sup> US Government Accountability Office, *Financial Crisis: Recent Crisis Reaffirms the Need to Overhaul the US Regulatory System*, GAO-09-1049T (Washington, DC, 2009) in Baldwin, Cave and Lodge, *ibid* 283.

<sup>8</sup> Julia Black, ‘The role of risk in regulatory processes’ in R. Baldwin, M. Cave, and M. Lodge (eds), *The Oxford Handbook of Regulation* (OUP, 2010); See Julia Black and Robert Baldwin, ‘Really responsive Risk-based Regulation’ (2010) 32 *Law and Policy* 184.

<sup>9</sup> Julia Black, ‘The emergence of risk-based regulation and the new public risk management in the United Kingdom’ (2005) 512 *Public Law* 535.

<sup>10</sup> Systemic risk is understood as being ‘a trigger event, such as an economic shock or institutional failure with a chain of bad economic consequences (domino effect) that could impact financial institutions, markets or both. The consequences could include (a chain of) financial

## 1.2 Risk in Context

The ‘Risk Society’ theory provides an interesting perspective to understand the phenomenon of risk in the OTC Derivatives Market (OTCDM). The main argument put forward here is that the OTCDM is a market of ‘manufactured risks’<sup>11</sup>. This section looks at how risk-society theory provides the ground to frame the role of innovation in the OTCDM. The origin and growth of the OTCDM is led by innovation<sup>12</sup> and in that way it creates multiple and evolving types of risks; as it occurs in other areas, the pace and impact of innovation does not necessarily increase certainty but the opposite<sup>13</sup>.

This section is devoted to explain how risk-based regulation helps regulators to control the risk manufactured in the OTCDM and hereby to cope with the impact of innovation. It also emphasises that risk-based regulators ought to acknowledge the difference between risk and uncertainties. This is that regulators have a limited capacity to anticipate uncertain and unknowable events (e.g. large-scale losses)<sup>14</sup>. However, regulators should also acknowledge that there are other types of uncertainties, the knowable uncertainties that might inform and contribute to the process of regulation. In this context, risks continue to be the ‘drivers’ of regulatory actions, while uncertainties perform a secondary role. To accept that uncertainties might inform a risk-based regime is not at all perpetuating the unrealistic idea that risk-based regimes are broad or powerful enough to ‘capture’ all sources of risks or that they promise ‘zero-failure’<sup>15</sup>. Instead, it is to emphasise that risk-based regimes are not informed exclusively

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institution and/or market failures. Less dramatically, these consequences might include (a chain of) significant losses to financial institutions or substantial financial-market price volatility’. Steven Schwarcz, ‘Systemic Risk’ (2008) 97 Geo. L. J. 193, 198.

<sup>11</sup> As it is explained by Joanna Gray ‘The near collapse in 1998 of Long Term Capital Management, an investment fund that traded in derivatives- the very instruments created to offset modern risk can be seen as a quintessential example of what Beck and Giddens would call modern manufactures risk.’ Joanna Gray and Jenny Hamilton, *Implementing Financial Regulation: Theory and Practice* (John Wiley & Sons Ltd, 2006) 7.

<sup>12</sup> Darrell Duffie, Ada Li and Theo Lubke, ‘Policy Perspectives on OTC Derivatives Markets Infrastructure’ (Federal Reserve Bank of New York, 2010, 10) [https://www.newyorkfed.org/medialibrary/media/research/staff\\_reports/sr424.pdf](https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr424.pdf) accessed 15<sup>th</sup> January 2016.

<sup>13</sup> Anthony Giddens, ‘Risk and Responsibility’ (1999) 62 MLR 1, 1.

<sup>14</sup> Joanna Gray, ‘Is it time to highlight the Limits of Risk-Based Regulation?’ (2009) 4 CMLJ 1, 51.

<sup>15</sup> *ibid* 53.

by quantifiable and objective risks but are fed by unknown but knowable uncertainties. Thus, this research argues that regulators in risk-based regimes should acknowledge that not all uncertainties are equal<sup>16</sup>. Although all uncertainties are unknown, they can be knowable or unknowable<sup>17</sup>, and the knowable uncertainties are the ones that might assist the design and implementation of risk-based regimes. Those are the uncertainties that can be reasonably anticipated when regulators design and implement a regime. Effective cooperation between regulators and regulated firms, throughout the process of regulation, facilitates the exchange of their multiple perceptions about the future and the identification of ‘knowable uncertainties’.

The reason to argue in favour of the role of uncertainties in risk-based regimes is that it allows regulators to face contingent phenomena, in particular ‘innovation’. The occurrence of innovation is uncertain and unknown but the form or content of innovation might be knowable. Under this rationale, regulators - by means of effective cooperation - are expected to be diligent in the task of foresee the form of innovation.

One possible shortcoming of this proposition is that in introducing one indeterminable element, i.e., ‘knowable uncertainties’, it undermines the clarity of what regulators should do or are expected to do. However, in order to overcome the shortcoming, regulators ought to define the parameters of responsibility and shape public and political expectations accordingly. This is to openly reaffirm the distinction between risks and ‘knowable uncertainties’, and the role and limits regulators have in each case. Therefore, while regulators will continue to use risk as a ‘driver’ of regulatory decisions, and in doing so they have a mechanism of risk identification and assessment, in the area of ‘knowable uncertainties’ the role of regulators is more a commitment to use strategies (e.g.

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<sup>16</sup> A similar argument is presented by Joanna Gray ‘True uncertainty, real unknowns that lay beyond or outside ex ante risk-assessment matrices are a very different thing from what **the factors and indicators used to constitute risk categories** to be assessed and measured to, in turn, look forwards to the desired outcomes of PBR’ *ibid* 60.

<sup>17</sup> Even the ‘scientific-rationalist’, ‘absolutist’ or ‘modernist’ model of risk accepts that uncertainties are knowable and unknowable. Adam B and J. Van Loon, ‘Introduction: Repositioning Risk the Challenge for Social Theory in Adam B, Beck U and van Loon (eds), *The Risk Society and Beyond. Critical Issues for Social Theory* (London, Sage Publications 2000) 8.

cooperation, information-sharing with firms) that allow the timely identification of such uncertainties.

To develop the foregoing argument, this section considers approaches to the problem of risk in sociological studies, it explains the most relevant concepts of the theory of 'Risk Society', and how risk has become central to financial regulation. It then, addresses the question of how the notion of 'manufactured risk' is applicable to the OTCDM.

### 1.2.1 Risk Society

The study of risk has largely occupied scholarship in a wide variety of special research areas<sup>18</sup>, and among them legal<sup>19</sup> and sociological studies<sup>20</sup>. Hence, different approaches have been used to provide an explanation of what risk means, how it is identified and selected, how society, governments and institutions respond to the risk they face. Although the studies regarding the role of risk are approached differently according to the discipline, in the social sciences there is a constant interaction, and sometimes contradiction<sup>21</sup>, between areas. In the area of regulation and the role of risk, the debate follows most prominently the analysis of the sociologists Luhmann and Beck<sup>22</sup>.

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<sup>18</sup> The statistical study of risk offers one of the most relevant contributions that is the difference between risk and uncertainty. See Frank Knight, *Risk, Uncertainty and Profit* (Boston, 1921); in management the decision theory see James G. March and Zur Shapira, 'Managerial Perspectives on Risk and Risk Taking' (1987) 33 *Management Science* 1404,1413; in cultural and social anthropologist studies have recognised that risk is a social problem see Mary Douglas and Aaron Wildavsky, *Risk and Culture: An Essay on Selection of Technological and Environmental Dangers* (Berkeley, 1982); and Branden B. Johnson and Vincent T. Covello (eds), *The Social and Cultural Construction of Risk: Essays on Risk Selection and Perception* (Dordrecht, 1987).

<sup>19</sup> One of the first areas of legal studies to adopt the concept of risk was maritime insurance as a mechanism to control risk in navigation and trade. Nicklas Luhmann, *Risk: A Sociological Theory* (New York, Aldine De Gruyter 1993) 1; most recently, Luhmann asserts that 'the immense increase in risks is connected with the positivisation of law, but also with numerous legal institutions (e.g. freedom of contract, guarantee of the juristic personality to economic organisations, trade concessions). Nicklas Luhman, Elizabeth King-Utz and Martin Albrow (trs), *A Sociological Theory of Law* (Oxford, 2nd edn, Routledge 2014) 193.

<sup>20</sup> Luhmann, *Risk: A Sociological Theory* (1993) *ibid* 1.

<sup>21</sup> Baruch Fischhoff, Stephan R. Watson and Chris Hope, 'Defining Risk' (1984) 17 *Policy Sciences* 123-139.

<sup>22</sup> Gray and Hamilton, *Implementing Financial Regulation* (n 10).

One of the lines of thought that analyses the phenomenon of risk and its role in society is the so-called 'Risk Society' built by Ulrich Beck. According to Beck, risk means anticipation of a positive or negative situation in the future. It exists in a state of virtuality and only when it is anticipated it becomes topical<sup>23</sup>. The rationale of the risk society is the distribution of 'bads' and dangers<sup>24</sup>. In a risk society there is a constant development of innovative technology that is not fully understood. In such a society, there is no end in production of possible futures<sup>25</sup>. These theoretical considerations are particularly helpful to study the dynamics of markets in constant evolution and lead by innovation, as the OTCDM.

The origin of the risk society was the result of evolution and recognition of social changes present in the industrial society. It was a time to understand that society lives beyond nature and tradition and people no longer live their lives as fate<sup>26</sup>. The process that allowed the surge of the risk society is in Becks' work attributed to reflexive modernity<sup>27</sup>, which is characterised as a period of prominent individualism, where the manual worker society was displaced by the educated and informational society. This transformation of society allowed risk-society theorists to question the role of risk.

The transition could be compared to the well-known commercial practice of brokers offering life insurance. All human beings are aware of their mortality, but after a talk with a life insurance broker their perception of the risk of death increases. Similarly, what occurs with the emergence of a risk society is that society becomes aware and worried about two notions: future and safety. As a result of that collectively shared perception<sup>28</sup>, the idea of risk surges<sup>29</sup>. Therefore, it is not that risk society implicitly represents an increase in dangers; the change is in the perception and reaction in front of the risks society faces. Moreover, as

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<sup>23</sup> Ulrich Beck, 'World Risk Society and Manufactured Uncertainties' (2009) 1 IRIS 292 <<http://www.fupress.net/index.php/iris/article/view/3304/2906>>. accessed: 18<sup>th</sup> January 2016.

<sup>24</sup> Ulrich Beck, *Risk Society: Towards a New Modernity* (SAGE Publications Ltd., 1992) 3.

<sup>25</sup> Giddens, 'Risk and Responsibility' (n 12) 3.

<sup>26</sup> *ibid.*

<sup>27</sup> Beck, *Risk Society: Towards a New Modernity* (n 23) 3.

<sup>28</sup> 'B. Latour and K. Knorr-Cetina would mention the "networks" through which they become established'. Beck, 'World Risk Society and Manufactured Uncertainties' (n 22) 297.

<sup>29</sup> Giddens, 'Risk and Responsibility' (n 12) 3.

the traditional institutions, conceived during industrial society, are no longer efficient to monitor and protect people from risk, it is argued that those institutions and agencies contribute to produce and legitimate risks themselves. This scenario feeds open-ended discussions regarding the challenges of a global society and the risk it faces.

The discussion concerning the theories of risk built in sociology scholarship goes beyond the scope of this research; it suffices to say that, for sociologists, the theory of risk is one part of the formation of modern society<sup>30</sup>. In this sense, it is understood that, in advanced modernity, the generation of wealth is inextricably linked to the social production of risks<sup>31</sup>. Then, in late modernity, the change is the move towards distribution of risks<sup>32</sup>. The modernization process triggers progress in several areas (e.g. technology, science) that results in a multiplication of known risks, while at the same time it questions the ability to prevent or minimize the impact of such risks. Also, the appearance of unknown risks challenges the modernization of society. It requires the identification of the potential unintended effects or unknown risks and to delimit what is actually tolerable. These considerations concerning the creation of known and unknown risks, as well as unintended effects, will inform the later analysis of the OTCDM as a centre of production of risks and uncertainties.

In order to understand the transformations that feature risk society it is also important to see that the risks can have positive and negative aspects. In a risk society, risks are not only hazards but also an expansion of choices<sup>33</sup>. Therefore, when society is linked to technological progress and innovation, the number of choices available increases for those in the position to take and afford the choice. Giddens and Pierson<sup>34</sup> exemplified this with the situation of a woman – they should have said a couple- with fertility problems. The scientific progress has made available a variety of treatments for infertility but only couples with high income can afford them. The positive and negative effects of risks are also

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<sup>30</sup> Luhmann, *Risk: A Sociological Theory* (1993) (n 18) 6.

<sup>31</sup> Beck, *Risk Society: Towards a New Modernity* (n 23).

<sup>32</sup> *ibid* 20.

<sup>33</sup> Anthony Giddens and Christopher Pierson, *Conversations with Anthony Giddens: Making Sense of Modernity* (Stanford University Press, 1998) 212.

<sup>34</sup> *ibid*.

a key concept in the OTCDM, since both sides impact the management of risk and profitability in derivatives transactions.

Under this rationale the modern society, in its latest stage, represents an explosion of identified or unidentified risks. This reveals one basic element of risk that distinguishes it from destructive consequences: it is the future component that in turn makes risk measurable or quantifiable. This means that society holds enough knowledge to foresee, control, mitigate and, if possible, to eliminate risk. Moreover, the possibility to measure risk determines the probability to calculate its probability of occurrence. This attribute allowed risk society theorists to differentiate risk from uncertainty. The latter, contrary to risk, cannot be measured and thereby cannot be controlled because its outcomes cannot be predicted. In the words of Joanna Gray the outcomes of uncertainty are ‘unknown and unknowable’<sup>35</sup>. In this regard, the regulation of OTCDM faces considerable challenges because, as will be explained, risk and uncertainties might receive similar treatment in the areas of investment and finance.

The debate in the discourse of risk embeds the idea of differentiating risk from uncertainty<sup>36,37</sup>. The traditional dichotomy<sup>38</sup> in the study of risk and risk regulation attends to two lines of thought. On the one hand, the ‘scientific-rationalist’, ‘absolutist’ or ‘modernist’ model<sup>39</sup> that understands risk as an objective concept, which can be quantified and measured, and is linked to the probability<sup>40</sup> and severity<sup>41</sup> of occurrence. Under this model, the regulation of risk should be the result of a technocratic process where experts lead the decision-making. The ‘technocrats’ hold knowledge and expertise and are in the

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<sup>35</sup> Gray and Hamilton, *Implementing Financial Regulation* (n 10).

<sup>36</sup> Kemshall, H, *Risk, Social Policy and Welfare*, (Buckingham: Open University Press 2002) 11; Hood, C and Jones D K C (eds), *Accident and Design. Contemporary Debates in Risk Management* (London, UCL Press, 1996).

<sup>37</sup> Ian Bartle, ‘Risk-based regulation and better regulation in the UK: towards what model of risk regulation?’ (2008) 2<sup>nd</sup> Biennial Conference of the ECPR Standing Group on Regulatory Governance, Utrecht University, the Netherlands.’ Regulation in the Wake of Neoliberalism. Consequences of Three Decades of Privatization and Market Liberalization’ <http://regulation.upf.edu/utrecht-08-papers/ibartle.pdf> accessed 15<sup>th</sup> January 2016.

<sup>38</sup> Robert Baldwin and Martin Cave, *Understanding Regulation: Theory, Strategy and Practice* (Oxford, OUP, 1999) 145,148.

<sup>39</sup> D Lupton, *Risk*, (London and New York, Routledge,1999) 6.

<sup>40</sup> Knight, *Risk, Uncertainty and Profit* (n 17) in Lupton *ibid* 9.

<sup>41</sup> D Smith D and B Toft, Risk and Crisis Management in the Public Sector (1998) Issues in Public Sector Risk Management, 18 Public Money and Management 4, 10.

position to analyse and decide the risk that individuals and society should tolerate. This model considers that uncertainty is unknown and possibly unknowable, mainly because it is derived from perception and lacks of verifiable data<sup>42</sup>. Uncertainties are merely speculative and the result of qualitative judgements or predictions. The scientific-rationalist method is also criticized for being utilitarian<sup>43</sup>, because it privileges the total benefit even if it exceeds the total costs or risks. Hence, it is irrelevant whether those assuming the costs or risks are in a good position to manage them<sup>44</sup>. As will be explained later in this section, the OTCDM evidences the shortcomings of using this model because purely mathematical study of risks is insufficient to control the market ‘manufactured risks’.

On the other hand, there is the ‘social-constructivist’ ‘socio-political’ ‘post-modernist’ model<sup>45</sup>. According to this model, risk is constantly merging with uncertainty and, as such, it cannot always be quantified and measured. Moreover, risk and uncertainty can easily overlap with each other. Contrary to the technocratic approach, this model asserts that circumstances are always different, from which probabilities are derived and, as a result, the outcomes of analytical models are flawed and based on uncertain knowledge<sup>46</sup>. This model argues that purely statistical and mathematical identification of risks done by experts lacks democratic legitimacy. Therefore, under this model, regulation of risk should involve all the interested actors, not only the ‘technocrats’. This research argues that the risk-based regime of the CCPs in the OTCDM should integrate the multiple perceptions of risks and uncertainties that regulators and

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<sup>42</sup> S O Hansson, ‘Risk’, *The Stanford Encyclopedia of Philosophy*, (2007) <http://plato.stanford.edu/entries/risk/> accessed 15<sup>th</sup> January 2016.

<sup>43</sup> The first systematic account of utilitarianism was developed by Jeremy Bentham, *Introduction to the Principles of Morals and Legislation* (1781) <http://www.utilitarianism.com/jeremy-bentham/index.html> accessed 15<sup>th</sup> January 2016.

<sup>44</sup> H. Hermansson H, ‘Consistent Risk Management: Three Models Outlined’ (2005) 8 J Risk Res 7-8, 562.

<sup>45</sup> Adam B and van Loon, J (2000), ‘Introduction: Repositioning Risk; the Challenge for Social Theory’ (n16) 8.

<sup>46</sup> Pat O’Malley, *Risk, Uncertainty and Government*, (Abingdon: Routledge-Cavendish, 2004) 18; Studying the idea of external factor and subjectivity in the data used to create Sustainability Standards. The doctoral thesis (unpublished) Philip Paiement, ‘Voluntary Sustainability Standards: Regulating and Coordinating in Transnational Law’ (Tilburg University, 2015) [https://pure.uvt.nl/portal/en/publications/voluntary-sustainability-standards\(c4d982d7-2fa0-4a1f-bcbc-10c4cebe38a2\).html](https://pure.uvt.nl/portal/en/publications/voluntary-sustainability-standards(c4d982d7-2fa0-4a1f-bcbc-10c4cebe38a2).html) (Writing workshop of The Transnational Law Summer Institute (TLSI), Kings’ College, London, July 2015).



firms have. Although regulators are challenged to achieve a balance between potential conflicting interests (i.e. interests of the public and interests of firms), cooperation with regulated firms would contribute to the design and facilitate the effective implementation of the regime.

The importance of this second model lies on the development of the idea of ‘subjective risks’. Such risks are derived from other types of knowledge, not only mathematical, and their perception is usually influenced by cultural, social and political factors<sup>47</sup>. Therefore, subjective risks might not surprisingly merge with objective risks. Here, subjective perceptions of risk affect behaviour and hereby can change actual objective outcomes<sup>48</sup>.

#### **1.2.1.1 Manufactured Risk**

Studying Beck’s risk society, Giddens identifies a category of risks called ‘external risks’, they were recognised in the midst of the Welfare State in the post-1945 period<sup>49</sup>. The role of the State then was to protect society against risks (e.g. provide insurance for sickness, unemployment, disabilities). Society started to leave the external risks attached to the notions of nature and tradition, whilst transitioned to a society marked by ‘manufactured risks’. Certainly, the appearance of ‘manufactured risks’ challenged the Welfare State conceived in the post-WW2. They triggered a crisis in the management of risks, as now new types of risks lead society<sup>50</sup>.

Beck and Giddens have led the study of ‘manufactured risks’. Giddens defines ‘manufactured risks’ as ‘risks created by the very progression of human development, especially by the progression of science and technology’<sup>51</sup>. The particular characteristic of this type of risk is that, as it comes with progress and

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<sup>47</sup> Baldwin and Cave, *Understanding Regulation* (1999) (n 37) 141.

<sup>48</sup> J Adams J, *Risk*, (London, UCL Press, 1995) 23.

<sup>49</sup> Giddens, ‘Risk and Responsibility’ (n 12) 3.

<sup>50</sup> Giddens and Pierson (n 32) 216.

<sup>51</sup> Giddens, ‘Risk and Responsibility’ (n 12) 3.

innovation, it can be hardly measured or quantified. The data available from history falls short to inform the probabilities of occurrence<sup>52</sup>.

As might be anticipated, the idea of ‘manufactured risks’ challenges the assertion that all risks can ineffably be measured or calculable based on data which, as was explained earlier, is the traditional way to distinguish risk from uncertainty. Indeed, Giddens seems not to be concerned with the distinction as he uses interchangeably the terms ‘manufactured risk’ and ‘manufactured uncertainty’<sup>53</sup>, while Beck prefers the use of the term ‘manufactured uncertainties’. Hence, Beck considers that risks are different from ‘manufactured uncertainties’, because they are dependent on human to human decisions, created by the society itself, collectively imposed and individually unavoidable<sup>54</sup>. There is an inherent impossibility to calculate ‘manufactured uncertainties’, because they break with the known risks and the ways institutions have dealt with them. Notwithstanding the distinction between risk and uncertainty, when it comes to ‘manufactured risks’ there is limitless creativity triggered by incalculable uncertainty<sup>55</sup>.

Another characteristic of ‘manufactured risk’ is that it presumes new politics<sup>56</sup>, a reorientation of values and the relevant strategies attached. This means that society –in the era of ‘reflexive modernity’- is aware of its limits and contradictions, and those of the modern order. The limits that take the form of ‘manufactured risks’<sup>57</sup> require an update of the politics and the strategies to manage them. Such a review of politics and strategies might bring positive outcomes: for instance, enhancing engagement with certain areas and types of risks. New politics require that any of the actors involved call attention when he/she has identified a serious risk<sup>58</sup>.

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<sup>52</sup> Giddens and Pierson (n 32) 210.

<sup>53</sup> Giddens, ‘Risk and Responsibility’ (n 12) 4.

<sup>54</sup> Beck, ‘World Risk Society and Manufactured Uncertainties’ (n 22) 298.

<sup>55</sup> *ibid* 291.

<sup>56</sup> Giddens and Pierson (n 32) 212.

<sup>57</sup> *ibid*.

<sup>58</sup> Giddens, ‘Risk and Responsibility’ (n 12) 5,

Although the reshape and update of politics might contribute to better manage ‘manufactured risks’, the *ethos* of this type of risks limits the reaction of society. Beck highlights that the issues of de-location<sup>59</sup>, incalculableness and non-compensability of manufactured uncertainties prevent the integral protection against them<sup>60</sup>. Moreover, the speed with which politics evolves is heavily influenced by cultural perceptions in each country. In the words of Beck ‘the pace of development outstrips the cultural imagination of society’<sup>61</sup>. In this scenario, ‘manufactured risks’ provoke extensive debates regarding the limits they pose and how they should be managed. The discussion results in new forms of institutionalization (e.g. regulation) and decision-making processes that respond to conditions of manufactured uncertainty<sup>62</sup>. Hence, the traditional institutional mechanisms to manage risks are not enough to cope with ‘manufactured risks’.

### 1.2.2 Risk-Government

The theory of risk society is not, however, the unique explanation to the role of risk in society and in regulation. Initially, the need to control risks through regulation was perceived as a response from governments after they had non-well-managed crises. For strategic and political reasons, governments seek to restore public confidence by introducing new regulation, tackling the risks that caused previous crises<sup>63</sup>. Indeed, the initial efforts to impose legal controls to risk date from the mid-1960s when specialized agencies were created in the US to directly regulate particular risks<sup>64</sup>. The work of Foucault<sup>65</sup> and the theory of governmentality provide an answer to the questions of how to be governed, and particularly how to be governed by the State, or as Foucault called it ‘the

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<sup>59</sup> The term de-location indicates that manufactured risks are not always constrained to a specific geographical area.

<sup>60</sup> Beck, ‘World Risk Society and Manufactured Uncertainties’ (n 22) 293.

<sup>61</sup> *ibid* 297.

<sup>62</sup> *ibid*.

<sup>63</sup> Gray and Hamilton, *Implementing Financial Regulation* (n 10).

<sup>64</sup> George L. Priest, ‘The New Legal Structure of Risk Control’ ch 7 in Pat O’Malley, *Governing Risks* (The International library of Essays in Law and Society, Ashgate, 2005) 205.

<sup>65</sup> G Burchell, C Gordon and P Miller, *The Foucault Effect: Studies in Governmentality* (Chicago University Press: Chicago, 1991) <https://laelectrodomestica.files.wordpress.com/2014/07/the-foucault-effect-studies-in-governmentality.pdf> accessed 13<sup>th</sup> January 2016.

political form of government'<sup>66</sup>. According to the theory of governmentality and its analysis of 'The Prince' of Nicholas Machiavelli, the reason of the exercise of power is 'to reinforce, strengthen and protect the principality'<sup>67</sup>. Hence, the government is organised according to the needs of modern societies. However, the extent of such needs varies and is usually determined by liberalist and neo-liberalist discourses<sup>68</sup>. At this stage, technical experts are in the privileged position to define and select risks according their own conceptions<sup>69</sup>.

From the perspective of risk society theory, risk governance is associated with absence of control<sup>70</sup>. The awareness about risk in government is, in fact, recognition of the limits to the ability to control uncertainties<sup>71</sup>. However, the role of risk in the 'governmentality theory' is to be a tool to control and shape behaviours<sup>72</sup>. Indeed, risks are means to guide what governments and individual should do according to political views. The way in which risk is used in risk-governance is influenced by the particularities of the environment in which it operates<sup>73</sup>. Similarly, the governmental authorities start to develop methodologies and strategies according to their own definition of risks. As Joanna Gray explains, the adoption of risk-based regulation by the Financial Services Authority is one example of an authority designing its own 'powerful rhetorical framework'<sup>74</sup>. The evolution of the risk-based approach to regulation in the UK financial system and the role in changing behaviour are explained later in this chapter.

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<sup>66</sup> *ibid.*

<sup>67</sup> *ibid.*

<sup>68</sup> D Hodgson, '“Know your consumer”: Marketing, Governmentality and the New Consumer of Financial Services', (2002) 40 *Management Decision* 4, 318-328 in Gray and Hamilton, *Implementing Financial Regulation* (n 10) 9.

<sup>69</sup> Beck, *Risk Society: Towards a New Modernity* (n 23).

<sup>70</sup> Anthony Giddens, *Runway World: How Globalization is Reshaping our Lives* (Profile Books: London, 1999) in Gray and Hamilton, *Implementing Financial Regulation* (n 10) 8.

<sup>71</sup> *ibid.*

<sup>72</sup> Pat O'Malley, 'Risk, Power and Crime Prevention' (1992) *Economy and Society*, 252 *ibid* 9.

<sup>73</sup> Pat O'Malley, *Risk, Uncertainty and Government* (n 45).

<sup>74</sup> Gray and Hamilton, *Implementing Financial Regulation* (n 10) 12.

### 1.2.3 Risk and Regulation

The dynamic of risk as a ‘driver’ of regulatory decisions reveals the complexity of implementing risk-based regimes. In the highly controversial<sup>75</sup> work of Stephen Breyer ‘Breaking the Vicious Circle: Towards Effective Risk Regulation’<sup>76</sup>, the author showed the impossibility of reconciling the gap between scientific methods of measuring risk and political pressures in a world of ‘newfound risks’<sup>77</sup>. Breyer criticized risk-based regulation, arguing that its implementation is a vicious circle that tends to fall in three shortcomings: overregulation, random selection of priorities, and inconsistent implementation across government agencies and areas. Hence, the design of a coherent risk programme and a set of rational priorities covering risk regulatory programmes<sup>78</sup> is key to break the vicious circle.

Furthermore, there are some features of the use of risk-based regulation and the task is not limited to the integration of multiple perceptions of risks. When government authorities face some conflict between different risk-based regimes, the use of risk allows regulators to shift responsibility for certain risks to the regulated firms<sup>79</sup>. As a result, it is arguable whether the element of risk effectively depoliticizes the regulatory process<sup>80</sup>.

Despite the critiques of risk-based regimes, this research argues that the adoption of risk-based regulation in a world of ‘newfound risks’ does not necessarily undermine the role of uncertainty<sup>81</sup> and its democratic character.

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<sup>75</sup> This work severely criticized by Senate Judiciary Committee Chairman Joseph Biden. He told Breyer that he was "delighted that as a judge you won't be able to take your policy prescriptions into the court". He called Breyer "presumptuous and elitist," Joan Biskupic, Senators Question Breyer's Economics; Biden Calls Cost-Effective Approach to Environmental Protection 'Elitist.' Washington Post, July 15, 1994 A6 in Todd Zubler, ‘Book Note: ‘Breaking the Vicious Circle: Toward Effective Risk Regulation’ (1994) 8 Harv. J.L. & Tech 1 Fall, 1 <http://jolt.law.harvard.edu/articles/pdf/v08/08HarvJLTech241.pdf> accessed 15<sup>th</sup> January 2016.

<sup>76</sup> Stephen Breyer, *Breaking the Vicious Circle: Towards Effective Risk Regulation* (Harvard University Press, Cambridge MA, 1993).

<sup>77</sup> Zubler (n 74).

<sup>78</sup> Baldwin and Cave, *Understanding Regulation* (1999) (n 37) in Ian Bartle, ‘Risk-based regulation and better regulation in the UK: towards what model of risk regulation? (n 36).

<sup>79</sup> Gray and Hamilton, *Implementing Financial Regulation* (n 10).

<sup>80</sup> *ibid.*

<sup>81</sup> S. Reddy, ‘Claims to expert knowledge and the subversion of democracy: the triumph of risk over certainty’ (1996) 25 *Economy and Society* 222,254.

Now, it seems clear that uncertainty and risk might align and form a hybrid system<sup>82</sup>. As was explained before, regulators adopt the sociological model to study risk, the decision-making process concerning what risk exists, the level of tolerance and how to control it, is not restricted to mathematical methods. Instead, it is shaped through the integration of different sources of knowledge and with the participation of all interested actors. This argument, translated into the dynamics of risk-based regulation, can be identified by means of a regulatory process that welcomes cooperation between firms and regulatory authorities.

In order to understand how cooperation between firms and regulators works, it is important to highlight that, as the risk-society theory asserts, the perception of risk varies and is influenced by cultural, political and social factors. Hence, it is perfectly possible that regulators perceive some types of risk as most prominent, while financial firms recognise the existence of different risk. Similarly, there might be different perceptions of risks within the firm<sup>83</sup>. Therefore, when risk-based regulation is designed and implemented, different risks should be considered in order to create a coherent approach. In the ideal scenario, risk-based regulation would imply the appropriate and timely cohesion of multiple perceptions of risks, this is to integrate the perception of government, regulators and firms. The adequate integration of these perceptions would allow regulators to balance the multiple interests in play and to use risk as a driver of regulatory decisions.

The previous considerations are relevant to financial services regulation, where the concept of risk has been adopted as a benchmark. Hence, as explained by Joanna Gray, 'regulation has to be proportionate to the risks'<sup>84</sup>. Then, the extent to what risk influences the content of financial regulation delimits the decision making process, and more importantly it contributes to define what regulators do and are expected to do.

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<sup>82</sup> Pat O'Malley, 'Imagining insurance: risk, thrift and industrial life insurance' (1999) 5 Connecticut Insurance Law 2, 675, 705.

<sup>83</sup> Joanna Gray proposes the use of Cultural Theory to explain that perceptions of risk, and responses to risk management strategies, are closely related to internal cultures that exists within an organisation Gray and Hamilton, *Implementing Financial Regulation* (n 10) 44.

<sup>84</sup> *ibid.*

Moreover, in the area of financial services regulation the role of risk is not only considered from regulators' perspective. It also considers the role of individuals within the firm. Although the detailed discussion of risk-based regimes is in the next parts of this chapter, it is important to explain that the adoption of a risk-based approach to regulation involves the desire to shape firms' internal cultures and processes. This is not only to integrate firms' perception and attitude towards risk. It also embeds rules of senior management and staff, and hence accountability<sup>85</sup>. Thus, the phenomenon of risk within the firm considers the internal structure of control, and the role of board and risk committees. The rationale is, as Joanna Gray explains, that financial regulation has extended its reach "downwards" into the level of the regulated firm to impose specific responsibilities on individuals within those firms, particularly on senior managers<sup>86</sup>. Senior Managers' regime imposes specific duties to members of the board and individuals performing managerial roles. Moreover, the firm's internal control system is expected to contribute to the achievement of regulator's objectives. Therefore, the effective implementation of risk-based regimes relies on the effective cooperation and a coherent dialogue between regulators and firms. Such model of cooperation integrates regulators and regulated firms' perceptions of risks and uncertainties, and how they should be managed and controlled.

With the previous insights in mind, this research brings this brief reference to risk society and Beck's theory to frame the evolution of OTC derivatives as an example of a 'manufactured-risk-market'.

#### **1.2.4 The OTCDM is a 'Manufactured-Risks-Market'**

The risk-society theory provides the context to argue that the OTCDM is a 'manufactured-risk-market' and a formation of the modern society in financial markets. The OTCDM creates risks and accumulates uncertainties. The uncertainties might be 'known unknowns' or 'unknown-unknowns' that the OTCDM brings to regulators and firms. These uncertainties in turn show the

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<sup>85</sup> *ibid* 46.

<sup>86</sup> *ibid* 55.

limits of the expertise and regulation of the market. As part of a risk society, regulators and firms are aware of the risks and uncertainties manufactured in the OTCDM.

The awareness of such limits might assist regulators and market participants. It allows regulators and firms to manage risks and, if possible, uncertainties. There might be, however, some challenges. Firstly, regulators and firms have to 'identify' uncertainties<sup>87</sup>. Due to the incalculable nature of uncertainties their anticipation, although useful, might be difficult in practice. Secondly, in an ideal scenario regulators and firms are expected to coordinate the management of risks. The coordination requires a constant sharing of information and expertise, so regulators and firms have timely access to the same information about the market and participants' practices. However, such a level of coordination is usually challenged by the interaction between potential conflicting interests<sup>88</sup>.

Notwithstanding the challenges, risks and uncertainties manufactured in the OTCDM have the potential to inform the process of design and implementation of regulation, especially in risk-based regimes. The reason is that as Joanna Gray asserts in the areas of finance and investment 'the difference between risk and uncertainty is (perhaps deliberately so) not commonly maintained'<sup>89</sup>. It follows that uncertainties receive a veil of certainty and objectivity, regardless of the impossibility in measuring or quantifying them. Recognising this situation, this research emphasises that, in risk-based regimes, the role of risk and uncertainties is different. To use a metaphor, while the known-risks are the 'drivers' of regulatory actions, the uncertainties are the 'co-drivers or co-pilots' that, while having a secondary function, still contribute to take the risk-based approach to the expected outcomes.

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<sup>87</sup> 'Uncertainty represents a distinctive way of governing through the future' Pat O'Malley, 'Uncertain subjects: risks, liberalism and contract' ch13 in Pat O'Malley, *Governing Risks* (n 63) 349.

<sup>88</sup> The regulator represents the interests of the public and the regulated firms. As they might be conflicting, the regulator needs to find a balance and avoid privileging one over the others.

<sup>89</sup> Gray and Hamilton, *Implementing Financial Regulation* (n 10).



The OTCDM is a ‘manufactured-risk-market’, because risks exist as an integral part of the activities performed in the market. In order to develop this argument, it is firstly important to bring into this section the functions derivatives perform and the reasons they were created. The defenders of the derivatives market argue that derivatives improve economic efficiency because they divide risks and allocate them to the most willing risk-bearers<sup>90</sup>. With no intention to anticipate the discussion of the second chapter, it has been argued<sup>91</sup> that OTC derivatives are useful in completing asset markets, enhancing price discovery and, although debatable, they contribute to absorbing systemic risk<sup>92</sup>.

Financial derivatives were created to manage and control the risk triggered by the volatility of financial markets<sup>93</sup>. These instruments are useful to hedge<sup>94</sup> risk, basically any type of risk. The purpose of hedging is to provide protection when an entity is exposed to potential risk; the notion of hedging is to reduce or reallocate risk instead of creating it. However, this tool of risk management does not always bring the expected benefits. In practice, the hedging of risk might be affected when the derivative does not cover the targeted risk, or when the counterparty of the derivative transaction - this is the provider of protection - defaults. Although the different hypothesis in which hedging of risks by using derivatives is not effective will be explained in detail later in this thesis, the point of the argument is that derivatives are not always performing its risk-management function. When financial derivatives do not contain risks they become multipliers of risks.

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<sup>90</sup> David Mullins, ‘Remarks on the Global Derivatives Study Sponsored by the Group of Thirty’ (1993) ISDA Summer Conference 1 [https://fraser.stlouisfed.org/scribd/?item\\_id=35397&filepath=/docs/historical/federal%20reserve%20history/bog\\_members\\_statements/mullins\\_19930728.pdf#scribd-open](https://fraser.stlouisfed.org/scribd/?item_id=35397&filepath=/docs/historical/federal%20reserve%20history/bog_members_statements/mullins_19930728.pdf#scribd-open) accessed 18<sup>th</sup> September 2015

<sup>91</sup> Dan Awrey, ‘The Dynamics of OTC Derivatives Regulation: Bridging the Public-Private Divide’ (2010) *European Business Organization Law Review* 11.

<sup>92</sup> Roger Lowenstein, ‘When Genius Failed: The Rise and Fall of Long-Term Capital Management’ (2000) and Thomas F. Siems, ‘10 Myths About Financial Derivatives’ (1997) *Cato Inst.*, *Cato Policy Analysis* No. 283 8-9.

<sup>93</sup> Henry T.C. Hu, ‘Misunderstood Derivatives: The Causes of Informational Failure and the Promise of Regulatory Incrementalism’ (1993) 102 *Yale L.J.* 1457, 1464-65.

<sup>94</sup> Carolyn H. Jackson, ‘Have You Hedged Today? The Inevitable Advent of Consumer Derivatives’ (1999) 67 *Fordham L.Rev.* 3206.

Similarly, financial derivatives are instruments that allow speculation. Speculation occurs when the parties enter into a derivative transaction with the sole purpose of taking advantage of the future movements of prices and obtain the respective profit<sup>95</sup>. Also, financial derivatives might be used to obtain funding at a preferential rate<sup>96</sup>. Another common practice in the use of financial derivatives is arbitrage. This practice consists of using market imperfections as mismatches in market movements, artificially restricted opportunities and so on, to generate profits. Arbitrage might consist on staking positions before markets react to certain events<sup>97</sup>.

As might be anticipated risk is the common element to all the functions performed by financial derivatives. Indeed, risk is the driver of derivatives transactions. Hence, what derivatives markets do is to isolate and transfer both negative and positive outcomes of risk. While the negative effect of risk is managed to avoid losses, the positive effect represents the possibility to obtain profit<sup>98</sup>.

The rationale of financial derivatives as instruments of risk-management helps this research to argue how they fit in the category of ‘manufactured risks’. Two arguments are central to explain the manufactured character of the OTCDM risks. Firstly, the primary purpose of the markets in which derivatives are traded, exchange and OTC, is to provide tools to manage risk. Both financial and non-financial firms use derivatives to that end<sup>99</sup>. Hence, financial derivatives are a creation; they are the result of the progression of finance and financial technology (FinTech) and thereby manufactured. Secondly, this manufactured

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<sup>95</sup> Norman Menachem Feder, ‘Deconstructing Over-the-Counter Derivatives’ (2002) 677 Colum. Bus.L.Rev.719; Don M. Chance, ‘Losing Money with Derivatives’ (1998) Essays in Derivatives 289, 300.

<sup>96</sup> For example, Moody’s and Standard and Poor’s find derivatives to be a source of income stability for commercial banks. Peter A. Abken, ‘Over-the-Counter Financial Derivatives: Risky Business?’ (Fed. Reserve Bank of Atlanta Econ. Rev., Mar.-Apr.1994) 5.

<sup>97</sup> Feder, ‘Deconstructing Over-the-Counter Derivatives’ (n 94) 720.

<sup>98</sup> Desmond Eppel, ‘Risky Business: Responding to OTC Derivatives Crises’,(2002) 40 Colum. J. Transnat’l L.677, 687.

<sup>99</sup> Anatoli Kuprianov, ‘The Role of Interest Rate Swaps in Corporate Finance’ (Fed. Reserve Bank Rich. Econ. Q., Summer 1994) 53, 58.

market itself represents various types of risks<sup>100</sup>, including credit, market, liquidity, legal and operational risks. The particularities of each one of the risks brought by derivatives market will be discussed later.

Additionally, the inclusion of the Central Counterparties CCPs in the OTCDM is adding complexity to the structure of the market. Although the role of CCPs in the OTCDM has been discussed later in this thesis, it is opportune to explain that CCPs are the new intermediaries of the OTCDM. A CCP poses itself in the middle of the transaction and becomes the counterparty of the two initial counterparties. As a result, there is a change in the allocation of credit risk that is now transferred to the CCP<sup>101</sup>. CCPs are crucial nodes in the financial system, hence their systemic importance in terms of managing, reducing and allocating the inherent risks arising from transactions between market participants<sup>102</sup>. Notwithstanding the benefits of the use of CCPs, their systematically important position creates and deepens some risks in the OTCDM. As CCPs are highly interconnected their failure might prompt negative externalities<sup>103</sup>. Moreover, the establishment of a CCP creates the risk of contagion<sup>104</sup> of shocks and losses. Also, CCPs in the OTCDM are too difficult to substitute<sup>105</sup>, which is problematic when one of just a few operating CCPs ceases to provide services. Thus, the introduction of the CCPs in the OTCDM might be a source of ‘manufactured risks’ when they fail to solve and, instead, deepen issues such as concentration of risks and excessive interconnectedness, and when the operation or failure of the CCPs creates new risks.

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<sup>100</sup> Brandor Becker and Francois-Ihor Mazur, ‘Risk Management of Financial Derivatives Products: ‘Who’s Responsible for What?’ (1995) 21 J.Corp.L 177, Fall 183.

<sup>101</sup> Douglas D. Evanoff, Daniela Russo, and Robert S. Steigerwald, ‘Policymakers, researchers, and practitioners discuss the role of central counterparties’ (2006) 4Q Economic Perspectives- Federal Reserve Bank of Chicago and European Central Bank. [http://econpapers.repec.org/article/fipfedhep/y\\_3a2006\\_3ai\\_3aqiv\\_3ap\\_3a2-21\\_3an\\_3av.30no.4.htm](http://econpapers.repec.org/article/fipfedhep/y_3a2006_3ai_3aqiv_3ap_3a2-21_3an_3av.30no.4.htm) accessed 26<sup>th</sup> May 2013.

<sup>102</sup> Chande, Nikil, Nicholas Labelle and Eric Tuer, ‘Central Counterparties and Systemic Risk’ (Bank of Canada financial system review, December 2010).

<sup>103</sup> IMF, ‘Central Counterparties: Addressing their Too Important to Fail Nature’ (Working Paper, January 2015).

<sup>104</sup> CCPs actions may have ‘pro-cyclical’ effects by exacerbating other stresses in the financial system.

<sup>105</sup> IMF, ‘Central Counterparties: Addressing their Too Important to Fail Nature’ (n 102).

#### 1.2.4.1 The Role of Innovation

The manufactured nature of the OTCDM shows that purely mathematical studies of risks are not enough to control ‘manufactured risks’. This is because entrepreneurialism is in the heart of the OTCDM and ‘uncertainty is the timeless reality of entrepreneurial activity’<sup>106</sup>. The OTCDM relies on the liberty to create new products and the use of probabilistic calculations of future harms that, by nature, neglects the ‘liberty to create the future’<sup>107</sup>. The OTCDM is the hotbed of entrepreneurial behaviour<sup>108</sup>; indeed, success and profitability are mostly derived from innovation - that is how different are the new products and practices from those of the past that have been already controlled by regime. Hence, if OTCDM regulators seek to inform regulatory reforms solely based on previous experiences or crises that put in the forefront the ‘known-risks’ of the market, they are likely to fail in dealing with innovative sources of risks, that this research calls ‘Innovation Risk’.

The OTCDM itself is a product of innovation rather than evolution - proof of that is the fact the products currently traded are substantially different from those designed in the 1970s<sup>109</sup>. Innovation usually increases the complexity<sup>110</sup> of the market by means of introducing certain types of products and market practices that are not fully understood by regulators and market participants. Indeed, intermediaries are usually the ‘precursors’ of such innovation. Their interest is to take advantage of the new products and the information that only they hold. Thus, innovation challenges regulators and their ability to keep pace and anticipate, if possible, the direction of such innovation. Moreover, innovation has an important effect, which will be explained in

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<sup>106</sup> Knight, *Risk, Uncertainty and Profit* (n 17).

<sup>107</sup> Pat O’Malley, ‘Consuming risks: harm minimization and the government of ‘drug users’ in Russell Smandych (ed), *Governable Places: Readings in Governmentality and Crime Control*, (Advances in Criminology Series, Aldershot, Dartmouth, 1999).

<sup>108</sup> The subjects that act within the area of known-risks are called ‘prudent-consumers’, while those who innovate appear as ‘entrepreneurs’. David Osborne and Tedd Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, (New York, Plume Books 1993).

<sup>109</sup> Donald McKenzie, ‘The material production of virtuality: innovation, cultural geography and facticity in derivatives market’ (2007) 36 *Economy and Society* 3, August, 359 <http://www.tandfonline.com/doi/pdf/10.1080/03085140701428332> accessed 14<sup>th</sup> January 2016.

<sup>110</sup> Dan Awrey, ‘Complexity, Innovation, and the Regulation of Modern Financial Markets’ (2012) 2 *HLR*, 267.

following chapters, which is the possibility to increase complexity through the generation of what Awrey calls ‘unanticipated and undetected interconnections’<sup>111</sup>. The unintended interconnections between different markets and participants are channels of communication of risk. The UK regime of CCPs in the OTCDM is an example of how innovation in compliance might result in the transfer of risks from the OTCDM to the repo market. In other words, how ‘creative compliance’ of the current regime might frustrate the objective of enhancing the risk management in the OTCDM.

In particular, the OTCDM innovation is not restricted to apply technological inventions<sup>112</sup> seeking to facilitate trade. Instead, innovation occurs when hedging, speculation and market making converge. Although this tripartite categorization of activities has been used to explain innovation in the exchange-traded market<sup>113</sup>, it also guides innovation in the OTCDM. The reason is that, similar to the exchange-market, the OTCDM allows the performance of these activities. Also, the features that traditionally distinguished the OTC and Exchange markets are being progressively blurred as a result of the post-GFC regulatory reforms, and now both markets share some common characteristics. The context in which innovation takes place in the OTCDM is a source of ‘manufactured risks’ that are not always foreseen by regulators. Therefore, the argument here is not restricted to the evolution of the OTCDM and how the ‘pace of innovation has left financial regulators and regulation behind the curve’<sup>114</sup>. Instead, this research emphasises that the OTCDM is itself a ‘manufactured-risk-market’, and as such the use of the risk-based approach to regulation should respond to the classical financial system risks – credit, liquidity and operational risks - as well as those created by the particular dynamics of the market and the regulation in place.

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<sup>111</sup> *ibid.*

<sup>112</sup> This is Technological innovation. Barry Barnes and David Edge (eds), *Science in Context: Readings in the Sociology of Science* (Cambridge Mass, MIT Press 1982).

<sup>113</sup> McKenzie (n 108).

<sup>114</sup> Dan Awrey, ‘Complexity, Innovation, and the Regulation of Modern Financial Markets’ (n 109) 239.

#### 1.2.4.2 Creative Compliance

The behaviour of firms participating in the market and particularly complying with regulation is sometimes heavily influenced by creativity. This creativity is for the purpose of this research, a form of innovation that characterises the OTCDM and creates 'manufactured risks'. There are mainly two forms of enforcement methods to ensure the observance of rules: compliance (cooperation) and deterrence<sup>115</sup> (punishment). Under the rationale of risk society both models are forms of controls against<sup>116</sup> risks, but compliance might be more effective as it ensures observance through the use of few resources<sup>117</sup>. To persuade is less expensive than to punish<sup>118</sup>. However, when firms incur in gross non-compliance, regulators are almost compelled to use punishment<sup>119</sup> (e.g. when non-compliance is causing substantial damages). According to the compliance method of enforcement, the idea behind regulation is securing compliance<sup>120</sup>. This means that the first approach of regulators is to expect that firms will voluntarily observe rules and principles. However, when firms do not act accordingly, regulators have enforcement powers and a sanctions system that are the deterrence<sup>121</sup> mechanisms.

Along with the incentives provided by regulators<sup>122</sup>, in the area of compliance, industry and firms model their perceptions and attitude towards risks<sup>123</sup> and regulation. The key notion to consider here is the existence of

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<sup>115</sup> Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (OUP, 1992) 39.

<sup>116</sup> Roger Cotterell, *The Sociology of Law: An Introduction* (London, Butterworths 1992) 245.

<sup>117</sup> John T. Scholz, 'Voluntary Compliance and Regulatory Enforcement', (1984) 6 Law and Policy October, 385, 404.

<sup>118</sup> Ayres and Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* ( n 114) 26.

<sup>119</sup> Keith Hawkins, 'Law as Last Resort' in Robert Baldwin, *Reader on Regulation*, (OUP, 1998) 298.

<sup>120</sup> Ayres and Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* ( n 114) 39.

<sup>121</sup> Deterrence can be passive or graduated. See Thomas Schelling, *Arms and Influence* (New Haven, YUP 1966) ; Laura Langbein and Cornelius Kervin, 'Implementation, negotiation and compliance in environmental safety regulation' (1985) 47 Journal of Politics 854, 880.

<sup>122</sup> Peter N. Grabosky, 'Regulation by Reward: On the Use of Incentives as Regulatory Instruments' (1995) 17 Law & Policy 3, 257.

<sup>123</sup> Based on Group Theory 'Mary Douglas explains why, and how, different individuals, groups and organisations might perceive risks differently'. M Douglas, Cultural Bias (Occasional Paper

‘subcultures of resistance to regulation’<sup>124</sup> that represent the interests of the firm, but more importantly the industry forces. For instance, in the derivatives market, firms tend to follow the advice of the International Swaps and Derivatives Association ISDA to cooperate in the regulatory process. This consideration is also relevant in the identification of the ‘manufactured risks’ discussed before. This is because the perception of the risks created in the OTCDM and how they should be managed is influenced not only by the dynamics of the individual firm but also by the ‘industry subculture’, and by shared interpretational frameworks industry creates<sup>125</sup>. Whilst such ‘industry subculture’ sometimes might be aligned to regulators’ objectives (e.g. when communication and education persuade firms to comply)<sup>126</sup>, when the costs of compliance are less than the benefits firms will tend to avoid total and uncontested compliance. In such a situation, there are basically two options: to negotiate compliance with the regulator<sup>127</sup> or to find ‘creative forms’ of compliance that tend to left the regulator lagging behind the avoidance activities<sup>128</sup>. The option that occupies this section is ‘creative compliance’, understood as a way in which innovation takes form.

Creative compliance is defined as ‘using the law to escape legal control without actually violating legal rules’<sup>129</sup>. It is a reaction from regulated firms to the content of certain regulation. In this sense, the attitude towards rules is not to

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35, London, Royal Anthropological Institute) in Gray and Hamilton, *Implementing Financial Regulation* (n 10) 41.

<sup>124</sup> Ayres and Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (n 114) 39.

<sup>125</sup> Cultural Theorists identify the existence of shared interpretational frameworks that enable organisations and groups to make sense of their social and natural environments’ Gray and Hamilton, *Implementing Financial Regulation* (n 10) 42.

<sup>126</sup> K Hawkins and J M Thomas, ‘The Enforcement Process in Regulatory Bureaucracies’ in K Hawkins & J Thomas, *Enforcing Regulation*, (Boston, Kluwer Nijhoff 1984) 82.

<sup>127</sup> Ayres and Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (n 114) 26.

<sup>128</sup> D. McBarnet, ‘Law, Policy and Legal Avoidance: Can Law Effectively Implement Egalitarian Policies’ (1988) *Journal of Law and Society*, Spring, 113.

<sup>129</sup> D. McBarnet, ‘Law and Capital: The Role of Legal Form and Legal Actors’ (1984) 12 *Int J Sociology of Law* 233; McBarnet, ‘Law, Policy and Legal Avoidance’ (1988) *J Law & Society* 1 13; McBarnet, ‘It’s Not What You Do But The Way That You Do It: Tax Evasion, Tax Avoidance and the Boundaries of Deviance’ in Downes (ed), *Unraveling Criminal Justice* (London, Macmillan, 1991); Doreen McBarnet and Christopher Whelan, ‘The Elusive Spirit of the Law: Formalism and the Struggle for Legal Control’ (1991) 54 *MLR* 6, 848.

observe them but to find the way to work with them<sup>130</sup> and actively manipulate the law<sup>131</sup>. This means that regulated firms are creating new ways to escape the intended consequences of the regime and hereby comply with the letter of the law ‘while undermining the policy behind it’<sup>132</sup>. The importance of compliance performed with high standards of honesty and integrity has been recognised as a central element to preserve the reputation of financial firms and its members<sup>133</sup>. Moreover, in times of multiple regulatory reforms, financial markets are living the ‘age of the compliance officer’<sup>134</sup>. The role of compliance officers within the structure of financial firms is pivotal to keep up with new and changing regulatory requirements.

Compliance officers are required to have the knowledge and expertise in the firm and be up-to-date with regulatory changes; they usually are a multidisciplinary group of experts in law, finance and accountancy<sup>135</sup>. It is precisely with such a high level of knowledge and scrutiny of the law when creative compliance might take place. The window of creativity is on the gaps, exemptions, and exclusions of the law as well as the literal interpretation of restrictive rules. Thus, creative compliance exposes the limits of formalism as a mechanism of law and control<sup>136</sup>, especially because it uses specific rules and legal forms to deceive the purpose of regulation. Creative Compliance might be triggered when the regulator tries to cover all the possible areas - and correlated risks - with over-prescriptive rules, but also when the rules are too general that leave gaps and fractures in the regulation.

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<sup>130</sup> McBarnet, ‘Law and capital: The role of legal form and legal actors’ (n 128) 3.

<sup>131</sup> McBarnet and Whelan, ‘The Elusive Spirit of the Law’ (n 128).

<sup>132</sup> Doreen McBarnet, ‘When Compliance is not the solution but the problem: From Changes in Law to Changes in attitude’ (The Australian National University, Australian Taxation Office, Centre for Tax System Integrity Working Paper N 18 August 2001) 8.

<sup>133</sup> For instance, the BIS states that: ‘A bank should hold itself to high standards when carrying on business, and at all times strive to observe the spirit as well as the letter of the law. Failure to consider the impact of its actions on its shareholders, customers, employees and the markets may result in significant adverse publicity and reputational damage, even if no law has been broken’. BIS, ‘Compliance and the compliance function in banks’ (April, 2005) <http://www.bis.org/publ/bcbs113.pdf> accessed 19<sup>th</sup> January 2016.

<sup>134</sup> Sam Fleming, ‘The age of the compliance officer’ (2014) FT Report, April 24, 12:19 am <http://www.ft.com/cms/s/0/cadd54a6-c3bd-11e3-a8e0-00144feabdc0.html#axzz3xiWFXGRI> accessed 19<sup>th</sup> January 2016.

<sup>135</sup> Athul Shah, ‘Creative Compliance in Financial Reporting’ (1996) 21 Accounting, Organizations and Society 1 January, 23.

<sup>136</sup> Mark Kelman, *A Guide to Critical Legal Studies* (Cambridge, Harvard University Press, 1987).



To reduce the events of creative compliance, McBarnet and Whelan<sup>137</sup> propose the adoption of an anti-formalist approach to the law. Even though the adoption of the approach might be criticized<sup>138</sup>, its main attribute is that anti-formalism is policy-oriented<sup>139</sup> and it entails an emphasis on substance<sup>140</sup>, to avoid tight definitions and benefit the use of broad criteria still preserving coherence<sup>141</sup>, and to interpret reality according to the spirit of the law. This involves a constant review of the regulated firms' practices in line with the policy guiding the regime. This argument supports the line of thought of this research in emphasising the importance of designing and implementing a coherent risk-based approach as the 'route map' of the regulation of CCPs in the OTCDM. Coherence is reached when a risk-based regime integrates the perceptions of regulators and firms related to the 'manufactured risks' of the OTCDM and how they should be managed. Also, regulators should be bestowed with sufficient enforcement powers to ensure compliance.

The findings of this research exemplify the 'fractures' of the UK regime of CCPs in the OTCDM. The fractures are affecting the achievement of the regulatory objective of enhancing the stability of the market. The absence of a coherent conduct of business regime of CCPs, the insufficient legal framework underpinning CCPs' operations, the lack of a Special Resolution Regime for CCPs, and the failure to rule 'Innovation Risk' are fractures that hinder the attainment of regulatory objectives. The regulator's objective is to enhance the stability of the OTCDM by ensuring the safety and soundness of Central Counterparties CCPs.

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<sup>137</sup> McBarnet and Whelan, 'The Elusive Spirit of the Law' (n 128) 851.

<sup>138</sup> Examples in the UK regarding the adoption of formalistic regulation are: 'The debates in legislatures, the press, and general lobbying over the Seventh Directive, the Companies Act 1989, the new (Statements of Standard Accounting Practices (SSAP) on 'off balance sheet financing (OBSF) and the 'new approach' in tax avoidance have all been characterised by real life counter-arguments which in jurisprudence would be labeled a formalistic critique.' McBarnet and Whelan, 'The Elusive Spirit of the Law' (n 128) 856.

<sup>139</sup> Jason Scott Johnston, 'Uncertainty, Chaos and the Torts Process: An Economic Analysis of Legal Form' (1991) 76 Cornell L. Rev 341, 97.

<sup>140</sup> The concept of substance over form is highlighted in *Ramsay (WT) Ltd v IRC* [1982] AC 300; *Furniss v Dawson* [1984] AC 474; *Helby v Mathews* [1895] AC 471,475; *Re Curtain Dream* [1990] BCLC 925, 935. See Duncan Kennedy, 'Form and Substance in Private Law Adjudication' (1976) 89 HLR 1685,1775.

<sup>141</sup> Ernest Weinrib, 'Legal Formalism: On the Immanent Rationality of Law' (1988) 97 Yale L. J. 949.

Following this line of thought, understanding that the OTCDM is indeed a ‘manufactured-risk-market’ allows this research to assert that there are several risks produced in the market and by the current regulation. The purpose of this research is to call attention on how some ‘manufactured risks’ have not been adequately addressed in the UK regime of CCPs in the OTCDM.

### **1.3 Addressing the argument in favour of the Principles Based Regulation**

In financial regulation, the debate regarding what strategy to implement is somehow a cyclical discussion. Sometimes the result is, like the quote from a very famous song<sup>142</sup>, that: “You can’t always get what you want, but if you try sometimes well you might find, you get what you need”. The reader of the regulation strategies constantly realises that the practical distinction between one strategy and another is sometimes very subtle, and that the integration between them might offer better results than their individual implementation<sup>143</sup>. The defenders of one or another strategy of regulation tend to promise that it will contribute to overcome all the potential issues regulators face in practice. Indeed, there is a well-intentioned objective of continuously trying to improve the content and features in order to suggest the ‘best strategy’. However, the result and the experience during times of crises stem in a new wave of debate and criticisms of the just-abandoned strategy.

That was the case of the Principles Based Regulation (PBR). The PBR was heavily criticized particularly in the UK after the GFC. Nonetheless, there were some defenders of the strategy. Immediately after the GFC, Awrey proposed that the PBR would be one of the most appropriate strategies to rule innovation and complexity in financial markets, particularly in the OTCDM<sup>144</sup>. In short, he argued that a ‘more-principles-based-regulation’ (MPBR) has the potential to respond to the challenges steaming from the complexity and

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<sup>142</sup> Rolling Stones, ‘You can’t Always Get what you want’.

<sup>143</sup> About the relationship between Principles Based Regulation and Risk-Based Regulation. Gray, ‘Is it time to highlight the limits of risk-based financial regulation?’ (n 13) 50, 62.

<sup>144</sup> Dan Awrey, ‘Regulating Financial Innovation: A More Principles-Based Alternative?’ (2011) 5:2 Brook. J. Corp. Fin. & Com. L. 273 <http://ssrn.com/abstract=1702457> accessed 17<sup>th</sup> January 2016.

innovativeness of financial markets<sup>145</sup>, and studied the case of the OTCDM. He asserts that MPRB can ameliorate asymmetries of information and expertise between regulators and regulated firms, ‘constrain agency costs, promote harmonisation and generate more responsive and durable regulation’<sup>146</sup>.

The foregoing description of the MPBR is brought to this research to show that similar benefits can be attributed to the use of risk-based regimes. Risk-based regulation, despite its drawbacks, is also a mostly efficient approach to regulate CCPs in the OTCDM and the innovation risk. The next section explains in detail the benefits and shortcomings of a risk-based approach and how it can be complemented with other strategies.

#### 1.4 Taxonomy of Risk-Based Approach

*Risk-based regulation* is a general set of principles that seeks to find common and homogenous elements to rationalise the regulatory process<sup>147</sup>. In particular, it prioritises regulatory actions in accordance with an assessment of the risk that the parties will present to the regulatory body’s achieving its objectives<sup>148</sup>. It is argued that this approach to regulation comprehends two stems: conduct of business and prudential regulation. It requires regulators to clearly define its objectives from the outset. Therefore, regulatory agencies conduct a process of decision-making to determine how to address and when to prioritise risks. It is highly likely that such a process is biased and affected by some errors in judgement. To explain this situation, the scholarship<sup>149</sup> has

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<sup>145</sup> *ibid.*

<sup>146</sup> *ibid.*

<sup>147</sup> Julia Black, ‘The Development of Risk-Based Regulation in Financial Services: ‘Just ‘Modelling Through’?’<sup>156</sup> in Black Julia, Lodge Martin and Thatcher Marck, *Regulatory Innovation a Comparative Analysis* (Edward Elgar Publishing, 2005).

<sup>148</sup> Black, ‘The Emergence of Risk-Based Regulation and the New PRM (n 9).

<sup>149</sup> Black, ‘The Development of RBR Just ‘Modelling Through’?’ (n 147); Julia Black, ‘Risk and Regulatory Policy: Improving the Governance of Risk. Risk-based Regulation: Choices, Practices and Lessons Being Learnt (2010) OECD, 185 [http://www.keepeek.com/Digital-Asset-Management/oecd/governance/risk-and-regulatory-policy/risk-based-regulation\\_9789264082939-11-en#page6](http://www.keepeek.com/Digital-Asset-Management/oecd/governance/risk-and-regulatory-policy/risk-based-regulation_9789264082939-11-en#page6) accessed 9<sup>th</sup> October 2015.

borrowed a theory developed in societal risk regulation<sup>150</sup>; this is the theory of the two types of errors. Type I of erring on the side of caution (judging something as risky when it is not), and Type II erring on the side of risk (judging something as safe when it is not). When applied to the process of selection of risks, the theory illustrates how the judgement of regulators is greatly subjective and thus, it might be affected by inner perceptions and external factors.

Risk-based regulation requires a strategy of regulation<sup>151</sup>, in which the quality of a firm's internal controls is the paramount focus of attention. The rationale is "to ensure that a firm's own system of regulation is enhanced to enable the regulator to spend fewer resources monitoring in the future"<sup>152</sup>. This is possible when there is a cooperation scheme between regulators and regulated firms. Such a scheme lies on the idea that, primarily, the responsibility rests on firms' self-regulation, and that these self-directed rules are in line with regulators' objectives. However, such cooperation is likely to be effective when regulators control and guide the self-directed rules, and enforce their powers to implement their own rules<sup>153</sup>. In this area it could be argued that such reliance in the firm's internal control is nothing different to that how the firm simply transplants risk-based supervision at a firm level. Although regulators might require firms to adopt certain rules in order to minimise the regulator's exposure to risk, the implementation of such rules is also benefiting the firm. This is because when the firm is operating under risk-based rules it is reducing the risk of failure as well as lowering the risk of litigation<sup>154</sup>. However, the process of designing and enforcing such rules sometimes, as in the case of large conglomerates, requires a 'negotiation' between regulators and those firms. The

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<sup>150</sup> Kriston Schrader- Frechette *Risk and Rationality* (Berkeley, University of California Press 1991).

<sup>151</sup> Julia Black and Robert Baldwin, 'When risk-based regulation aims low: A strategic framework' (2012) 6 *Regulation and Governance* 2, 131.

<sup>152</sup> Regulatory strategies are instruments used to regulate. For example: command and control, incentive-based regimes, market-harnessing controls, disclosure regulation, direct action and design solutions, and right and liabilities. Baldwin, Cave and Lodge, *Understanding Regulation* (n 3) 105.

<sup>153</sup> Julia Black and Robert Baldwin, 'When risk-based regulation aims low: Approaches and challenges' (2012) 6 *Regulation and Governance* 1, 2.

<sup>154</sup> Stuart Bazley, Andrew Haynes and Tony Bluden, *Risk-based compliance* (Butterworths Compliance Series, London, 2001) 2.

negotiation usually consists on firms proposing risk-management techniques and regulators reviewing whether those techniques and procedures are sufficient<sup>155</sup>.

Risk regulation in general is about far more than dry and technical implementation of risk assessment and risk management techniques<sup>156</sup>. This features the adoption of risk-based regulation<sup>157</sup>, and the “concomitant development of its risk-based operating framework for supervision”<sup>158</sup>, that has been of central importance in financial services<sup>159</sup>. This approach has been developed in financial services through two stems: prudential regulation and conduct of business<sup>160</sup>.

The first stem is prudential regulation. Prudence is a standard to judge behaviour. To act prudently means “acting with or showing care and thought for the future”<sup>161</sup>. In tort prudence refers to acting with reasonable care<sup>162</sup>. In company law the concept has been developed in the area of Directors’ Duties<sup>163</sup> and ‘prudence’ is related to the ‘reasonable care’ of directors in the exercise of their duties. In the area of regulation, prudential regulation and supervision is part of the command and control strategy developed in the risk-based approach. It involves monitoring the compliance of both individual firms and financial firms with safety and soundness<sup>164</sup> standards, but also evaluating whether these

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<sup>155</sup> *ibid.*

<sup>156</sup> Gray and Hamilton, *Implementing Financial Regulation* (n 10) 15.

<sup>157</sup> Clive Briault, ‘The Rationale for a Single National Financial Services Regulator’ (1999) FSA Occasional Paper N° 2; See HM Treasury, *Reforming Financial Markets* (London, 2009).

<sup>158</sup> ‘The various components which make up the FSA have for some time been moving towards much more formalised approaches to risk-based supervision. The SFA has FIBSPAM and the Bank of England produced ‘RATE’. (...) If risk-based supervision is carried out well, the approach should have a number of benefits. The first is consistency. (...) The second is cost effectiveness (...) The third effect will be the promotion of flexibility.’ Michael Foot, ‘Delivering cost-effective regulation through risk-based supervision’ (1999) 89 J.I.F.M. 2.

<sup>159</sup> Jón Danielsson, ‘On the Feasibility of Risk Based Regulation’ (2003) 49 Institute for Economic Research, CESifo Economic Studies 2, 1.

<sup>160</sup> Black, ‘The Emergence of Risk-Based Regulation and the New PRM (n 9) 20.

<sup>161</sup> (Concise Oxford English Dictionary, 2011).

<sup>162</sup> *Blyth v The Company of Proprietors of the Birmingham Waterworks* (1856) 11 Ex 781, 782.

<sup>163</sup> *Leeds Estate, Building and Investment Company v Shepherd* (1887) 36 ChD 787, 804.

<sup>164</sup> The basic goal of safety-and-soundness regulation is to protect “fixed-amount creditors” from losses arising from the insolvency of financial institutions owing those amounts, while ensuring stability within the financial system. Fixed-amount creditors are bank depositors, beneficiaries

standards are sufficient. The safety and soundness of a firm means it is adequately capitalised and as a result it is protected from insolvency and liquidity problems. The aim of prudential supervision is to reduce the sources of risk – originated within the firm and the market - that can affect the safety and soundness of regulated firms. To that end, regulators set prudential measures (e.g. capital requirements, risk management methods) that in the UK are included in the FSMA 2000 and subsequent reforms.

The second stem of risk-based regimes is conduct of business. The conduct of business is concerned with consumer<sup>165</sup> protection. But rather than focusing on the protection of clients from the insolvency of individual financial institutions, it emphasises safeguarding clients from unfair practices.

The adoption of risk-based regulation is motivated by multiple reasons<sup>166</sup>. It usually involves a concern of regulators to enhance its legitimacy and accountability. Hence, it is expected to have a clear demarcation of supervisors' role, what they are expected to achieve, and thus what they should be responsible for. Also, when adopting the risk-based model supervisors expect to have sufficient intervention tools, this is to have in place an enforcement regime. When supervisors are bestowed with enforcement powers they are capable to ensure compliance. As explained before, the initial approach is to expect that regulated firms voluntarily observe rules (compliance), but when this is not sufficient regulators are entitled to use deterrence mechanisms (e.g. sanction systems)<sup>167</sup>.

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and claimants of insurance companies, and account holders at brokerage firms who are owed fixed amounts of money. Bert Ely, 'Financial Regulation', *The Concise Encyclopedia of Economics* (2008) Library of Economics and Liberty <<http://www.econlib.org/library/Enc/FinancialRegulation.html>> accessed 18<sup>th</sup> January 2015.

<sup>165</sup> Consumer in the widest sense. For, instance the FCA Position Paper notes that the Definition of consumer will cover: retail consumers buying financial products, retail investors in financial instruments and a wide section of wholesale consumers'. HM Treasury-FCA (2011b), 'A New Approach to Financial Regulation: The Blueprint for Reform' CM8083 (June 2011) FCA.

<sup>166</sup> *ibid.*

<sup>167</sup> Ayres and Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (n 114) 39.

#### 1.4.1 The path towards the current model of Risk-based Regulation

Risk-based is an enthusiastic response to the call for a more efficient approach to regulation. It emerged after a period of strong rhetoric towards de-regulation, aiming to overcome the issues of inflexibility, legalism and in general over-regulation that affected the costs of regulation itself<sup>168</sup>. Such environment embraced the approaches to regulation that incorporated costs benefits analysis<sup>169</sup> and appeared to be more objective and transparent. It was the perfect scenario for risk-based regulation as an approach that provided efficient instruments for policy-making and illustrated effective decision-making.

Risk-based regulation was conceived for the first time in the 1980s, it emerged in the midst of the rise of the 'Regulatory State'<sup>170</sup>. The rationale of the Regulatory State<sup>171</sup> is driven by the move from public and centralised control to privatised institutions through new forms of State regulation<sup>172</sup>. This revolutionary fragmentation of the regulatory environment created new dynamics of cooperation between the existing regulatory agencies and the new self-regulatory bodies<sup>173</sup>. Although the integration of private institutions to the state regulatory function is attractive, it also has shortcomings. The concern is on the

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<sup>168</sup> Bridget M. Hutter, 'The Attractions of Risk-Based Regulation: Accounting for the emergence of risk ideas in regulation' (2005) Discussion Paper N. 33 ESCR Centre for Analysis of Risk and Regulation, 1 <http://www.lse.ac.uk/accounting/CARR/pdf/DPs/Disspaper33.pdf> accessed 20<sup>th</sup> October 2015.

<sup>169</sup> Christopher Hood, Henry Rothstein, and Robert Baldwin, *The Government of Risk: Understanding Risk Regulation Regimes* (Oxford University Press, 11 Mar 2004).

<sup>170</sup> 'The rise of the regulatory state is a well worn observation, although its exact nature and path of development remain contested (...) [the different] reconceptualizations emphasize the fragmentation and 'decentered' or 'poly-centered' nature of contemporary regulatory regimes, in contrast with a State-centric, hierarchical model of government and regulation.' Julia Black, 'Tensions in the Regulatory State' (Public Law, 2007) 1.

<sup>171</sup> See Giandomenico Majone, 'From the Positive to the Regulatory State: Causes and Consequences of Changes in the Mode of Governance' (1997) 17 *Journal of Public Policy* 2.

<sup>172</sup> The approach to regulation is different in the US and in Europe. 'In the US the tradition of regulation by means of independent agencies combining legislative, administrative and judicial functions goes back to the Interstate Commerce Act 1887. In Europe the approach was to treat regulatory matters as purely administrative (central departments or ministries) or purely judicial determined by courts of tribunals.' Giandomenico Majone, 'The rise of the regulatory state in Europe' (1994) 17 *West European Politics* 3, 78.

<sup>173</sup> John Braithwaite, 'Accountability and Governance under the new regulatory state' (1999) 58 *Australian Journal of Public Administration* 1, 90.

capacity of governmental agencies to conduct an effective oversight of private institutions and the consequences in terms of regulators' accountability<sup>174</sup>.

Breaking the traditional paradigm of the centralisation of regulatory functions to welcome the fragmentation of the regulatory environment renders some of the further developments in the management of the 'Regulatory State'<sup>175</sup>. Several structural changes were associated with new Public Management Paradigm<sup>176</sup>. Strategies of privatisation, liberalisation and deregulation, fiscal retrenchment, economic and monetary integration contributed to limit the role of the interventionist state<sup>177</sup>, while enhanced the power of rule making, this the rise of the regulatory state<sup>178</sup>. Meta-regulatory strategies, risk-based regulation, and the enhancement of regulators' enforcement powers are part of the establishment of the regulatory state. Even though the term 'de-regulation' might misleadingly suggest the return of the *laissez-fair laissez-passer* situation, in the context of the regulatory state it means a combination of de-regulation and re-regulation<sup>179</sup>. This change highlights the reality of regulation in practice, in particular that regulation is de-centralised and involves a broader spectrum of State and non-State actors, operating at a transnational, supranational, national and sub-national level. This interaction among multiple actors blurs the traditional boundaries between the regulators and regulated firms<sup>180</sup>.

In the context of the 'Regulatory State', the most notorious feature of the risk-based regulation is that it tackles the institutional risk. This is the risk that the regulator might not achieve its objectives. Hence, the risk-based approach is

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<sup>174</sup> Black, 'Tensions in the Regulatory State' (n 170) 2.

<sup>175</sup> *ibid.*

<sup>176</sup> Majone, 'From the Positive to the Regulatory State' (n 171) 140.

<sup>177</sup> Modern macro-economic theories of the state distinguish three main types of public intervention in the economy: income distributions; macroeconomic stabilisation; and market regulation. *ibid.*

<sup>178</sup> *ibid* 140.

<sup>179</sup> *ibid* 143; Majone (1994) 'The rise of the regulatory state in Europe' (n 172) 97.

<sup>180</sup> Julia Black, 'Critical Reflections on Regulation' (2002) 27 *Australian Journal of Legal Philosophy* 1



a strategy that not only targets the risks that pose the greatest threat to the regulators but also promotes the rational allocation of regulatory resources.

Those appealing features of risk-based regimes have attracted regulators around the globe. Several international organisations and committees have adopted the risk-based<sup>181</sup> approach to regulation and supervision<sup>182</sup>. The Basel Committee requires supervisors to adopt risk-based supervision in the 2012 revised Core Principles for Effective Banking Supervision<sup>183</sup>. Similarly, the International Organization of Securities Commissions (IOSCO)<sup>184</sup> and the International Association of Insurance Supervisors (IAIS) have produced sets of “principles” or “best practice standards” on regulation and supervision in the areas of securities regulation and insurance respectively that are illustrated by risk-based approach to regulation. The Financial Stability Board (FSB) Recommendations for the Supervision of Global Systemically Important Financial Institutions<sup>185</sup> emphasise the adoption of risk-based approach. In 2010 the IMF decided that the Financial Sector Assessment Programs (FSAPs) would follow a risk-based approach<sup>186</sup> based in two main criteria of the financial sector of a country: size and interconnectedness with financial services in other

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<sup>181</sup> It is said that ‘ Successful financial regulation, particularly in the attempted management of “systemic risks”, must be based on a coherent understanding of the relationships between microeconomic risk, macroeconomic contagion, and macroeconomic consequences’ Kern Alexander, Rahul Dhumale and John Eatwell, *Global Governance of Financial Systems: The International Regulation of Systemic Risk* (OUP, 2006) 4.

<sup>182</sup> Cynthia C. Lichtenstein, ‘The Fed’s New Model of Supervision for “Large Complex Banking Organizations”: Coordinated Risk-Based Supervision of Financial Multinationals for International Financial Stability’ (2006) *American Journal of Law & Medicine* 8, 283 <http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=1130&context=lsfp> accessed 21<sup>st</sup> January 2016.

<sup>183</sup> BIS, ‘Core Principles for Effective Banking Supervision’ (BCBS, September 2012) <http://www.bis.org/publ/bcbs230.pdf> accessed 21<sup>st</sup> January 2016.

<sup>184</sup> IOSCO Guidelines to Emerging Market Regulators Regarding Requirements for Minimum Entry and Continuous Risk-Based Supervision of Market Intermediaries (December 2009) <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD314.pdf> accessed 21<sup>st</sup> January 2016.

<sup>185</sup> FSB, ‘Increasing the Intensity and Effectiveness of SIFI Supervision. Progress Report to the G20 Ministers and Governors’ (1 November 2012) [http://www.fsb.org/wp-content/uploads/r\\_121031ab.pdf?page\\_moved=1](http://www.fsb.org/wp-content/uploads/r_121031ab.pdf?page_moved=1) accessed 21<sup>st</sup> January 2016.

<sup>186</sup> IMF, ‘Integrating Stability Assessments under the Financial Sector Assessment Program into Article IV Surveillance: Background Material’ (27 August 2010) <http://www.imf.org/external/np/pp/eng/2010/082710.pdf> accessed 21<sup>st</sup> January 2016; See Carlo Gola, Francesco Spadafora, ‘Financial Sector Surveillance and the IMF’ (IMF, Working Paper, 1 Nov 2009).

countries<sup>187</sup>. In the national level Australia, Canada<sup>188</sup>, the UK and the US<sup>189</sup> lead the development of the risk-based approach to regulation. While in other jurisdictions, in particular other financial regulation systems, the adoption of the risk-based regulation has been partial.

Julia Black suggests that the introduction of risk-based regulation might be regarded as a 'regulatory innovation' in both subjective and objective terms<sup>190</sup>. Accordingly, each regulator subjectively decides to adopt the risk-based approach through new organisational and decision-making processes, while at the same time implementing integrated frameworks that objectively assess the risk across regulated firms. Whatever the reasons to adopt (the) risk-based regulation, whether fully or partially introduced into domestic regimes, regulators expect that the risk-based approach will help them overcome their limited capacity to administer the traditional command and control regimes<sup>191</sup>.

However, the question of how novel or innovative risk-based regimes are persists<sup>192</sup>. This is because it is not prescriptive of these risk regimes to see how regulatory agencies are continuously prioritising resources and activities; neither is it novel the fact that the assessment of areas of policy attention and decision-making respond to the most urgent of risks. Then, if the problem is old, the question is what is novel in adopting a risk-based approach to regulation. One possible answer is that risk-based regulation, unlike other approaches, involves not only the analysis of economic costs and benefits, but also considers the

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<sup>187</sup> Inge Govaere, Reinhard Quick, Marco Bronckers, *Trade and Competition Law in the EU and Beyond* (Edward Elgar Publishing, 1 Oct 2011) 46.

<sup>188</sup> Black, 'The Development of RBR in Financial Services' (2004) (n 4).

<sup>189</sup> Arthur Wilmarth, 'The Transformation of the U.S. Financial Services Industry, 1975-2000: Competition, Consolidation, and Increased Risks' (2002) U. Ill. L. Rev. 215; McCoy, Patricia A. and Pavlov, Andrey D. and Wachter, Susan M., 'Systemic Risk through Securitization: The Result of Deregulation and Regulatory Failure' (2009). 41 Conn. L. Rev., 493 <http://ssrn.com/abstract=1367973> accessed 21<sup>st</sup> January 2016; Arthur Wilmarth, Jr., 'Reforming Financial Regulation to Address the Too-Big-to-Fail Problem' (2010) 35 Brook. J. Int'l L. 707.

<sup>190</sup> Black, 'The Development of RBR Just 'Modelling Through'?' (n 147).

<sup>191</sup> *ibid* 17.

<sup>192</sup> Black, 'The Emergence of Risk-Based Regulation and the New PRM (n 9).

concept of uncertainties<sup>193</sup>. This is the differential feature of the risk-based approach. It allows regulators to design and implement regimes that consider unknown but foreseeable events, which in turn might represent a threat to the achievement of regulatory objectives. Moreover, risk-based regimes offer a new element, especially relevant in financial regulation, which is an integrated decision making framework applicable to all levels of risk and firms<sup>194</sup>.

The study of the risk-based regulation literature leads this research to argue that this approach is part of a trend surrounding risk-management practices in the private and public sectors<sup>195</sup>. It is a strategy that offers alternative tools to regulatory agencies for the better design and conduct regulation in the midst of the institutional risk; it also enhances the efficient allocation of resources. However, despite the expected benefits if regulators want to benefit from the adoption of the risk-based regulation, they should ensure that the regime coherently includes the basic elements of the approach. Otherwise, and its part of what this research argues, regimes end up following a 'language of risk'<sup>196</sup>, where the observer can identify some disperse elements of the risk-based approach in the regime, but not a consistent adoption of it. One example of a risk-based element in the regime studied in this research is the Bank of England's regulatory priority, stated in 2013, to design a recovery and resolution regime that would enhance the safety and soundness of CCPs. The element of risk-based regulation to highlight here is the identification and prioritisation of risk. In this case the risk of CCPs' financial distress or insolvency. In practice, however, the BoE has focused its prudential regulation on the development of loss allocation and recovery rules, leaving aside the design of a special resolution regime. The absence of clarity prevents the efficient implementation of the approach. It triggers confusion because neither regulators or regulated firms understand what risk-based regulation looks like in practice, the benefits and the limits, to what

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<sup>193</sup> *ibid.*

<sup>194</sup> Black, 'The Development of RBR Just 'Modelling Through'?' (n 147)156.

<sup>195</sup> Julia Black locates risk-based approach as part of the movement called 'New Public Risk Management' (NPRM). The NPRM has two strands, the internal risk management practices and the risk-based regulation' Black, 'The Emergence of Risk-Based Regulation and the New PRM (n 9).

<sup>196</sup> The expression 'Language of Risk' is used by Joanna Gray to illustrate how the difference between risk and uncertainty is not commonly maintained in investment and finance. Gray and Hamilton, *Implementing Financial Regulation* (n 10).

extent risk-based regulation is the complete ‘route-map’ to conduct regulation and supervision, or whether it needs to be merged with other complementary strategies, as well as the impact it has for accountability.

In order to illustrate what risk-based regulation comprehends the next section explains the basic elements of the approach.

#### **1.4.2 Elements of the Risk-based Regulation**

Although the content of risk-based regulation varies according to the area and the jurisdiction where it is implemented, there are some common elements. These elements will be the parameters to assess the regime of Central Counterparties in the OTCDM in the UK.

The first element of risk-based approach to regulation is ‘risk tolerance’<sup>197</sup>. The discretion that regulators have when choosing what type of risks they are prepared to tolerate and at what level. Not surprisingly, for regulators this is a highly appealing feature of risk-based regulation regimes. Regulators are bestowed with a high level of discretion to choose the risks that the regime will prioritise, and those that are not<sup>198</sup>. However, such power does not come without restraints, the discretionary selection of risks is a ‘double edge sword’. This is because regulators are deciding the risks that deserve priority and special attention while at the same time excluding others. As a result, the scope of the regime is limited from the outset. An example of the level of risk tolerance in the UK financial services regulation is the approach of the Bank of England and the Prudential Regulation Authority to operate a ‘non-zero-failure’

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<sup>197</sup> Black, ‘Risk and Regulatory Policy: Improving the Governance of Risk’ (n 149) 186.

<sup>198</sup> Black, ‘The Development of RBR Just ‘Modelling Through?’ (n 147) 158.

regime<sup>199</sup>. This means that the PRA is willing to tolerate the risk of failure of regulated firms but with minimum disruption of services and without spillovers to the wider financial sector<sup>200</sup>.

It is true that the initial selection of risks is not a straitjacket for regulators but it is the ‘route-map’ that illustrates the primary areas of focus. Power<sup>201</sup> argues that risk-based regulation requires a new ‘politics of uncertainty’. The politics of uncertainty will allow regulators to review the assessment of risk and to include future types of risks. The argument of risk-based regulation requiring new politics of uncertainty should consider two factors. One factor is that although regulators are vested with the power to review, adjust and complement the strategy of regulation, the issue is that such reforms are not effective unless they are in place on timely manner. In other words, unless the review of the risks is continuous and as dynamic as market changes, regulators might react only when ‘non-regulated’ risks have crystallised. However, this could be avoided, or at least minimised, with a move towards an administrative regime to connect macro and micro prudential regimes. It is a regime that ensures information sharing, joint analysis of risks, and cooperation between authorities<sup>202</sup>. Although macro and microprudential authorities use prudential policy instruments and tools (e.g. capital and liquidity buffers and balance sheet restrictions) with different objectives, they serve as backstop of resilience both to the firm and to the system<sup>203</sup>.

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<sup>199</sup> The Bank of England, Prudential Regulation Authority, ‘The PRA’s approach to banking supervision’ (October 2012) <http://www.bankofengland.co.uk/publications/Documents/praapproach/bankingappr1210.pdf> accessed 22<sup>nd</sup> January 2016.

<sup>200</sup> Paul Fisher, ‘Speech: The Financial Regulation Reform agenda: What has been achieved and how much is left to do?’ (30<sup>th</sup> September 2015) <http://www.bis.org/review/r151009b.pdf> accessed 22<sup>nd</sup> January 2016.

<sup>201</sup> Michael Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty* (Demos, 2004).

<sup>202</sup> Jacek Osiński, Katharine Seal, and Lex Hoogduin, ‘Macroprudential and Microprudential Policies: Toward Cohabitation’ (IMF, Monetary and Capital Markets Department June 2013) 4 <https://www.imf.org/external/pubs/ft/sdn/2013/sdn1305.pdf> accessed 21<sup>st</sup> January 2016.

<sup>203</sup> *ibid.*

The other factor of the ‘new politics of uncertainty’ is that, as Joanna Gray explains<sup>204</sup>, regulators need to be clear about the differences between risk and uncertainty<sup>205</sup>, and how they are limited by this reality when implementing risk-based regimes. The reason is that regulators need to draw the line to differentiate future events that can be predicted and measured (risks) and those that cannot be reasonably foreseen (uncertainties). The difficulty is to restrict risk-based regimes to actually avoidable risks. The reliance on efficient and up to date models of risk identification and assessment assist regulators in delimiting the risks that can be controlled. Also, it avoids creating overly ambitious expectations of the regime<sup>206</sup>. To complicate things further regulators are not completely free from external influence. Particularly, the political context usually determines the extent of regulators’ tolerance of failure. One illustrative example relevant for this research is the post-GFC regulatory reforms. In the immediate aftermath of the Global Financial Crisis, financial regulators were compelled by the G20 leaders to regulate any market that had the potential to become source of systemic risk<sup>207</sup>; as a result, regulatory reforms moved towards enhancing macro-prudential regulation and supervision<sup>208</sup> in different markets that might trigger financial instability.

In the post-GFC regulatory reforms financial regulators reinstated the limits of their accountability by adopting a ‘non-zero-failure’ policy<sup>209</sup>, which means it should not be expected from them to prevent any future failure. Instead,

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<sup>204</sup> Gray, ‘Is it time to highlight the limits of risk-based financial regulation?’ (n 13).

<sup>205</sup> Knight, *Risk, Uncertainty and Profit* (n 17); M Power, *Organised Uncertainty* (OUP, 2007) in Gray, ‘Is it time to highlight the limits of risk-based financial regulation?’ (n 13).

<sup>206</sup> *ibid.*

<sup>207</sup> Contemporary financial regulation attempts to ensure that no systemic risks can harm the financial system. The most prominent examples are the Basel III framework, the Dodd-Frank Act, the Alternative Investment Fund Manager Directive (AIFMD) and the European Market Infrastructure Regulation (EMIR).

<sup>208</sup> ‘In late 2009, a discussion paper by the Bank of England, *The Role of Macroprudential Policy*, was issued. This built on the FSA’s Turner Review. [The aim] was to re-orient prudential regulation towards risk across the financial system as a whole. It also sought to establish how instruments could be designed and used to mitigate such risks’ Martin Day, ‘Macro-Prudential Regulation’ (Financial Regulation International, October 1<sup>st</sup> 2010) 2. See FSA, *Turner Review: A Regulatory Review to the Global Banking Crisis* (August 2009); Bank of England, ‘*The Role of Macroprudential Policy*’ (Discussion Paper November 2009).

<sup>209</sup> Financial Services Authority, ‘Reasonable Expectations’ (FSA, London, 2003) [http://www.fsa.gov.uk/pubs/other/regulation\\_non-zero.pdf](http://www.fsa.gov.uk/pubs/other/regulation_non-zero.pdf) accessed 15<sup>th</sup> January 2016.

they are responsible for using all the regulatory tools available to better manage the risks and the consequent negative effects in case of its crystallisation, in order to preserve the financial stability. This example illustrates how public expectations and political influence<sup>210</sup> impact the regulators' areas of attention, and similarly affect the stage of risk-identification.

The second element of risk-based regimes is risk-identification<sup>211</sup>. In this stage regulators identify the risks that might impact the achievement of their objectives. To this end, regulators collect relevant information about the market, participants, transactions, and so on. This means that regulators only identify risks that they know and are confident they can manage. Hence, it could be argued that the key to overcome the difficulties rising from flawed information when identifying risks is to ensure the access to correct and complete data.

Nonetheless, access to information does not complete the equation here; there are further indicators that contribute to have a clear view of the risks. Regulators determine some risk indicators that are 'activities or events that are likely to result in the risk crystallising'<sup>212</sup>. Objective and subjective factors concur in the selection of risk indicators. Regulators tend to analyse previous failures and the tacit knowledge about warning signs of risk crystallisation. For instance, in financial regulation, there are specialised studies conducted by academics<sup>213</sup> and international regulators<sup>214</sup> about previous crises and what

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<sup>210</sup> 'Indeed, in many respects the merits of risk-based regulation centre on the risk management strategies of regulatory agencies and governments as they manage their own political and legal risks (...)'Hutter, 'The Attractions of Risk-Based Regulation' (n 168).

<sup>211</sup> Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 186.

<sup>212</sup> *ibid* 195.

<sup>213</sup> Charles P. Kindleberger, Robert Z. Alibe, '*Manias, Panics and Crashes: A History of Financial Crises*', (Palgrave Macmillan, Sixth Edition, 2011); Christopher Kobrak & Mira Wilkin (ed), '*History and Financial Crisis: Lessons from the 20th Century*' (Routledge, 2013); Spencer Anderson, 'A history of the past 40 years in financial crises' (International Financing Review 2000 issue supplement) <http://edition.pagesuite-professional.co.uk/Launch.aspx?EID=b2eb69c3-7774-4d35-a0ff-c70b03f7288f> accessed 15<sup>th</sup> January 2016.

<sup>214</sup> Claudio Borio and Piti Disyatat, 'Global imbalances and the financial crisis: Link or no link?', (BIS Working Papers No 346, Monetary and Economic Department May 2011); Már Gudmundsson, 'How might the current financial crisis shape financial sector regulation and structure?' (BIS, Deputy Head of the Monetary and Economic Department, at the Financial

markets are likely to be the epicentre of the next financial distress. The study of the causes of previous crisis is only one helpful tool to consider proposals for mitigation and prevention of future crises. For instance, the GFC revealed amongst other issues the fundamental flaws in the rating agencies' business model<sup>215</sup> and regulators decide to enhance the regulation of credit rating agencies<sup>216</sup>.

Moreover, financial regulators also consider indicators as the assessment of management, governance and culture, of control functions, and risk arising from dealing with customers<sup>217</sup>. Financial regulators assess these risk indicators with qualitative methods rather than quantitatively because they are risks to the firm from the external market environment<sup>218</sup>. In the process of risk identification regulators consider all the factors and indicators to constitute risk categories. These include the risk factors regulators identify from previous crises and failures and tacit knowledge, as well as the risk indicators identified in the regulated firms. At the firm level, risk indicators are influenced by the internal organisation and dynamics of the firm and particularly by the market environment. Therefore, the aim of regulators is to find the balance among all risk indicators. This means to enhance the synergy and reduce the tensions between macro-prudential and micro-prudential policies.

The OTCDM post-GFC reform is an illustrative example of how previous crises inform regulators' identification of risks and the course of their

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Technology Congress 2008, Boston, 23 September) <http://www.bis.org/speeches/sp081119.htm>; The Economist, 'Assesses or liabilities? Regulators worry that the asset-management industry may spawn the next financial crisis' (August 2nd 2014) Available at <http://www.economist.com/news/finance-and-economics/21610297-regulators-worry-asset-management-industry-may-spawn-next-financial?fsrc=scn/gp/wl/pe/assetsorliabilities> accessed 15<sup>th</sup> January 2016.

<sup>215</sup> Buiter, Willem H., 'Lessons from the 2007 Financial Crisis' (2007) CEPR Discussion Paper No. DP6596, December <http://ssrn.com/abstract=1140525> accessed 22<sup>nd</sup> January 2016.

<sup>216</sup> CRAs are expected to observe international supervisory standards set primarily by IOSCO. CRAs that operate in the EU are subject to direct regulation under the CRA Regulation (*Regulation 1060/2009*) and direct supervision by the European Securities and Markets Authority (ESMA).

<sup>217</sup> Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 196.

<sup>218</sup> *ibid.*



supervisory actions. The move towards the implementation of CCPs was motivated and informed by the largely documented success of LCH. Clearnet; the CCP that cleared large part of the Lehman Brothers' OTC derivatives in the heat of the GFC. The experience of LCH. Clearnet is an example of how a CCP can effectively manage a clearing member's (CM) default and decrease systemic risk<sup>219</sup>. The default of Lehman Brothers was of \$9 trillion<sup>220</sup>. Upon default LCH.Clearnet had three options, namely: to liquidate the portfolio directly in the market, to unwind the book through a dealer who would act as an agent for the CCP, or auctioning off the positions as a package<sup>221</sup>. LCH. Clearnet chose the auction. However, before the auction took place, LCH confidentially hedged and neutralized the 'macro-level risk of Lehman'<sup>222</sup>. As the default could be managed within the margin LCH held for Lehman, there was no need to use any of the default fund<sup>223</sup>. It is reported that approximately 35% of Lehman's initial margin was used to hedge risk and auction the total house portfolio<sup>224</sup>. This means that LCH. Clearnet not only showed efficient CM's default management, it also protected all other market participants from counterparty and systemic risk. Accordingly, the G20 leaders decided that, attending to the complexities tied to the default management process, the best mechanism to manage counterparty credit risk in the OTCDM was the use of central clearing, through Central Counterparties (CCPs).

In the stage of risk assessment, financial regulators refer to impact and probability<sup>225</sup>, and weighting of risks. Weighting is to give more importance to

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<sup>219</sup> Julia Lees Allen, 'Derivatives Clearinghouses and Systemic Risk: A Bankruptcy and Dodd-Frank Analysis' (2012) 64 Stan. L Rev., 1079.

<sup>220</sup> Paul Cusenza & Randi Abernethy, 'Dodd-Frank and the Move to Clearing,' (INSIGHT, Sept 2010) 22, 23; LCH.Clearnet, '\$9 Trillion Lehman OTC Interest Rate Swap Default Successfully Resolved' (Press Release, Oct. 8 2008) [https://www.lchclearnet.com/Images/2008-10-08%20SwapClear%20default\\_tcm6-46506.pdf](https://www.lchclearnet.com/Images/2008-10-08%20SwapClear%20default_tcm6-46506.pdf) accessed 16<sup>th</sup> January 2016.

<sup>221</sup> Allen, Derivatives Clearinghouses and Systemic Risk (n 218).

<sup>222</sup> Press Release, LCH.Clearnet (n 219).

<sup>223</sup> *ibid.*

<sup>224</sup> Natasha de Terán, 'How the World's Largest Default Was Unravelling' (FIN. NEWS Oct 13, 2008) <http://www.efinancialnews.com/story/2008-10-13/how-the-largest-default-was-unravelling> accessed 16<sup>th</sup> January 2016.

<sup>225</sup> 'A bias towards impact means that regulatory attention is focused more on activities or events which have a relatively high impact but low probability; a bias towards probability means the regulator focuses more on high probability but relatively low impact events or activities' Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 196.

certain risks than others, it reveals the risk appetite of the regulator, and in turn the amount of resources that is willing to devote to manage the relevant risks. The weighting shows the level of risk the regulator is prepared to accept. Weighting is also used to incentivise individual firm's compliance. This is to consider the inherent risk of firms' activities and to acknowledge the measures taken by them to manage those risks effectively<sup>226</sup>.

Nevertheless, the initial weighting of risks is not static, it is likely to change once the regime is being implemented. New phases and concerns prompt changes in regulators perspective of risk. The OTCDM reform illustrates the dynamics regulators face when weighting risks. This is the assessment of where risks to financial stability are greatest and prioritise regulatory actions accordingly. Initially the OTCDM regulatory reform was focused on promoting the use of central clearing for all OTC derivatives transactions to better manage counterparty credit risk. Therefore, the regulatory priority was the management of credit risk, whilst other risks, as liquidity risk, were underestimated. This is a reflection of the flip side of risk-based regimes, as regulators have to identify which risks they are not prepared to devote their resources to preventing<sup>227</sup>. However, after some years of implementation regulators, CCPs, clearing members and clients, have realised that the imposition of mandatory clearing to a large portion of the OTC derivatives transactions would affect the liquidity of the CCP. This is because the suitability for mandatory central clearing depends, among other factors, on product and process standardisation, and on market liquidity<sup>228</sup>. Therefore, the management of the liquidity risk of CCPs, initially underestimated, is now a regulatory priority. It is now recognised that liquidity is a constraint that may require CCPs to review and modify risk management models<sup>229</sup>.

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<sup>226</sup> This use of weighting has been recognised in environmental regulation.

<sup>227</sup> Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 186.

<sup>228</sup> Che Sidanius and Anne Wetherilt, 'Thoughts on determining central clearing eligibility of OTC derivatives' (BoE, Financial Stability Paper No. 14 – March 2012) [http://www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs\\_paper14.pdf](http://www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs_paper14.pdf) accessed 16<sup>th</sup> January 2016.

<sup>229</sup> In the US regulators are debating the role of liquidity risk in front of CCPs : 'in volatile or discontinuous markets, clearing houses do not eliminate risks, but rather concentrate them on the

As was mentioned before during the stage of identifying and evaluating risks regulators are expected to establish the risks that can potentially affect the achievement of their objectives<sup>230</sup>. In order to control those risks regulators usually match their statutory objectives with them<sup>231</sup>. Therefore, the clarity of the statutory objectives is a key part of an effective design and implementation of the risk-based approach.

The relationship between risks and statutory objectives should consider explicit and implicit objectives. Explicit objectives are clearly stated by the regulator from the outset. For instance, the grounds of the supervision of CCPs are closely linked to the Bank of England's aim to preserve financial stability. Since the goal is a sound and safe financial system by ensuring institutional stability, the bank's aim is to ensure that CCPs' rules and policies are designed and applied to monitor, manage and mitigate risks, especially systemic risk. Similarly, the bank 'seeks to ensure that sufficient priority is given to continuity of key services, without systemic disruption and without recourse to public funds'<sup>232</sup>. These objectives show that the priority is on counterparty credit risk management for CCPs. The supervision lies on systemic risk management<sup>233</sup> through principles of: governance, management of operational risk, continuity of service and adequate rules in case of participants' default. The purpose of the Bank is to manage the risks concentrating in the CCP. The rationale is that risks posed by individual firms might fly under the radar when the regulator identifies and assess risks. However as those individual firms converge into a new intermediary – the CCP – by means of regulating CCPs, the Bank seeks to indirectly manage and control the risks posed by collective group of firms. These risks are linked to implicit objectives of the Bank.

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clearinghouses' own balance sheets'. John Dizard, 'Clearing house push created unforeseen systemic risks' (FT, 29<sup>th</sup> January 2016) [http://www.ft.com/cms/s/0/455c589a-c663-11e5-808f-8231cd71622e.html#axzz3ymqKotn9?ftcamp=engage%2Femail%2Fnewsletters%2Fsmart\\_brief%2Fsmartbriefnewsletterscontrafcf%2Fauddev&seid=0800933](http://www.ft.com/cms/s/0/455c589a-c663-11e5-808f-8231cd71622e.html#axzz3ymqKotn9?ftcamp=engage%2Femail%2Fnewsletters%2Fsmart_brief%2Fsmartbriefnewsletterscontrafcf%2Fauddev&seid=0800933) accessed 1<sup>st</sup> February 2016.

<sup>230</sup> One example of this 'risk-to-objectives' approach was the FSA in the UK.

<sup>231</sup> Baldwin, Cave and Lodge, *Understanding Regulation* (n 3) 283.

<sup>232</sup> Bank of England, 'The Bank of England's approach to the supervision of financial market infrastructures (April 2013) 4.

<sup>233</sup> *ibid.*

To clarify this point further, OTCDM participants in the bilateral trading pose and face credit risk. Due to the high level of interconnectedness and concentration of risk amongst few market participants, the default of one of them affects not only the direct counterparty. The consequences of default will multiply affecting not only the OTCDM but also other markets. This is how credit risk can grow into systemic proportions. In this scenario, the role of regulators would be to identify the risks that each high-risk individual firm poses to the market and to the financial stability. However, this role changed with the introduction of mandatory clearing in the OTCDM.

Mandatory central clearing, through CCPs, for a large part of the OTCDM implies not only a change in the structure of OTC derivatives transactions, but also a change in regulation of the market and its participants. The CCP interposes itself in every trade, and becomes the new counterparty of the two initial parties. The change in terms of regulation and supervision of the risks is that CCPs are nodes of risks that contribute to enhance credit risk management in the OTCDM. Therefore, regulating CCPs allow regulators to identify, assess and control the risks collectively. Instead of supervising individual firms that raise high risks, the regulator oversees CCPs, which are intermediaries that gather those high risks firms. The attention is on the risks the sum of high-risk firms may pose to financial stability.

Thus, the regulatory priority of the Bank on counterparty credit risk management for CCPs and the supervision on systemic risk management is indirectly serving some implicit objectives of the Bank, as regulator. Implicit objectives concern the regulation of the market and individual firms and the subsequent enhancement of OTCDM stability. This is to identify and capture the risks of the OTCDM by bringing together both strategic and firm-specific risks<sup>234</sup>. This facilitates conducting supervision by integrating macro and microprudential tools. The safety and soundness of CCPs is a means to pursue

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<sup>234</sup> Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 192.

the stability of the OTCDM. Hence, the regime does not only cover risks affecting CCPs, but also their members, which are high-risk firms.

The clarity of statutory objectives and its link to key risks should be predictable to the stages of design and implementation of the regime. For instance, if statutory mandates assign the functions of prudential supervision and conduct of business to two authorities, it is expected that in practice both authorities will be actively involved in the respective stems of supervision. This is because each mandate -prudential supervision and conduct of business- is matched with specific risks. However, the findings of this research show that this is not always the case. To briefly anticipate the discussion of following chapters, the regime of CCPs in the OTC derivatives market in the UK clearly states that the Bank of England is the prudential supervisor of CCPs, while the Financial Conduct Authority oversees the conduct of business of CCPs. However, after three years of the CCPs regime, it is not clear what authority is responsible for the conduct of business supervision. Despite the fact that UK authorities adopt a risk-based approach to regulation, in the specific regime of CCPs in the OTCDM the conduct of business supervision is abandoned.

Finally, the evaluation of risk demands regulators to identify what managerial attitudes and practices will adversely affect the level of risk presented by the firm. This is, on a case-by-case basis, to assess the internal management and risk-control, and to establish whether the firm's internal control system might exacerbate or mitigate the risks. Indeed, this stems from the risk-based approach's commonly substantial delegation of control functions down to the risk management systems of the firms being regulated and the inevitable 'meta-regulation'<sup>235</sup>.

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<sup>235</sup> 'Meta-regulation is inevitable: regulators simply do not have the resources to do anything else. Reliance is a fact of life. What the risk-based frameworks are intended to do is to help the regulator to identify where it is well placed, where it is not, and how it can be made so'. Black, 'Emergence of Risk-based regulation', 544 in Baldwin, Cave and Lodge, *Understanding Regulation* (n 3) 289.

The third element of risk-based regulation is that, after the assessment, regulators categorise firms and activities according to the level of risks<sup>236</sup>. This categorisation determines how the sources available will be distributed within the different levels of risks. Efficient resource allocation is, therefore, one of the most advocated benefits of risk-based regulation systems and the drive of ‘better regulation’<sup>237</sup>. The rationale is to conduct the risk assessment and to shift the resources within the categorised firms accordingly, something that is challenging for regulators in practice<sup>238</sup>. The risk rating of a firm structures the supervisory response<sup>239</sup>. Therefore, the allocation of those sources is translated into the number of inspections, the imposition of sanctions when there have been breaches, the monitoring of compliance and so on.

As might be anticipated, one shortcoming of the risk-based regulation is that it tends to place much emphasis on individual sites. Therefore, it is not always the most effective strategy to manage systemic risks, which are at the core of financial regulation<sup>240</sup>. Arguably, if regulators centre their attention onto those firms posing the greatest risks<sup>241</sup>, this means that some firms will ‘fly under the radar’ to a lesser or greater degree<sup>242</sup>. Thus, for a risk-based regime to be

<sup>236</sup> Black, ‘Risk and Regulatory Policy: Improving the Governance of Risk’ (n 149) 190.

<sup>237</sup> In the UK the ‘Better Regulation’ policy is explained in the Better Regulation Framework Manual: Practical Guidance for UK Government Officials (July 2013) <https://www.gov.uk/government/publications/better-regulation-framework-manual>; in the European Union several policy documents explain the Better Regulation Package, [http://ec.europa.eu/smart-regulation/index\\_en.htm](http://ec.europa.eu/smart-regulation/index_en.htm); The OECD and the EU are conducting the EU 15 Project to support reviewed countries individually; share experiences and strengthen networks; and establish a strategic view of developments and emerging trends relevant to the regulatory policy community across the OECD, in the context of achieving ‘Better Regulation’, more information <http://www.oecd.org/gov/regulatory-policy/betterregulationineuropeeu15countryfinder.htm> accessed 15<sup>th</sup> January 2016.

<sup>238</sup> Black, ‘Risk and Regulatory Policy: Improving the Governance of Risk’ (n 149) 211.

<sup>239</sup> Black, ‘The Development of RBR Just ‘Modelling Through’?’ (n 147).

<sup>240</sup> ‘The traditional rationale for financial services and markets regulation is the correction of Market failures related to asymmetric Information and to externalities, notably systemic risks, in order to support market efficiency and efficient resource allocation’. Niamh Moloney, ‘Financial Services and Markets’ in Baldwin, Cave, and Lodge, *The Oxford Handbook of Regulation* (n 8) 1; Criticising the market-failure approach for being a normative and not a positive theory. George J. Stigler, ‘The Theory of Economic Regulation’, (1971) 6 BELL J ECON 2, 114.

<sup>241</sup> (Risk-based regulation) the tendency is for regulators’ gaze to be drawn to their highest risks and for regulators to be encouraged to pull back resources from lower risks’. Black and Baldwin, ‘When RBR aims low: Approaches’ (n 153) 2.

<sup>242</sup> Baldwin, Cave and Lodge, *Understanding Regulation* (n 3) 284.

efficient it is desirable that it regulates all the firms according to their particular level of risk, instead of simply prioritising the supervision on the riskiest firms.

The issue regarding low-level risk firms affects any regulator implementing the risk-based approach. The question is what level of resources should be applied to them. Regulators tend<sup>243</sup> to use alternative regulatory tools as information campaigns, random inspections and or theme inspections. The use of these less costly techniques ensures the rationalised distribution of resources, while at the same time it enhances the effectiveness of the risk-based regulation strategy.

The dynamic nature of the regulated firms and its level of risk is challenging for regulators adopting the risk-based approach. Regulators should have in place different mechanisms to manage those risks that are not easy to graduate. For instance, the former Financial Services Authority issued a revised framework Arrow 2 requiring supervisors to enter a judgement to avoid leaving 'dark holes'<sup>244</sup> in the classification of risks. However, although this requirement was helpful, the Northern Rock case showed that it was not sufficient to cover all types risks firms may pose.

The fourth element is closely linked to the third. Risk-based regimes provide the framework to link the organisation enforcement resources to the risk scores assigned to individual firms or activities<sup>245</sup>. This means that the resources available to regulate are allocated among supervised firms according to the level of risk assigned. Thus, the higher the level of risk a firm poses, the higher the amount of resources regulators will dispose to supervise that firm. The drawback of this element is that it assumes that there are always enough resources available, and that regulators are capable to oversee firms of all levels of risks.

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<sup>243</sup> Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 201.

<sup>244</sup> *ibid* 214.

<sup>245</sup> *ibid*.

However, reality shows that regulatory resources are mostly scarce, which implies that regulators tend to allocate the available resources solely on the supervision of the riskiest firms<sup>246</sup>.

### 1.4.3 Risk-based Regulation and Accountability

The prioritisation of resources in the risk-based approach to regulation triggers special challenges of justification and legitimation, particularly to explain who should be making decisions on the risks that are important and those that are not<sup>247</sup>. The legitimation and justification in the process of risk selection brings also important concerns in terms of the accountability of the regulators<sup>248</sup> that adopt risk-based regimes.

The implementation of risk-based regulation in terms of accountability is mixed<sup>249</sup> because it involves managerial accountability and political accountability. The first, coming from the internal organisation and structure of the regulator, and the second, done by the public. In both scenarios, the content and extent of the accountability is determined, at an early stage, by the regulator itself. The regulator identifies the most significant risks and then distributes the resources accordingly. This means that the exercise of such discretion limits the extent of regulators' accountability<sup>250</sup>.

However, this line of thought in the literature<sup>251</sup> explains why a risk-based regulation approach represents a limit to the accountability of regulators, but it does not analyse the effects of risk-based regimes in the accountability of

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<sup>246</sup> *ibid* 285.

<sup>247</sup> *ibid* 294. See Power, *The Risk Management of Everything*, (n 200); Black, 'The Emergence of Risk-Based Regulation and the New PRM' (n 9).

<sup>248</sup> Black, 'Tensions in the Regulatory State' (n 170) 7.

<sup>249</sup> *ibid*.

<sup>250</sup> Black, 'The Emergence of Risk-Based Regulation and the New PRM' (n 9).

<sup>251</sup> Black, 'Tensions in the Regulatory State' (n 170) 8; Black, 'The Emergence of Risk-Based Regulation and the New PRM' (n 9); Power, *The Risk Management of Everything*, (n 200).



regulated firms and activities. It might be argued that the accountability of the regulated firms is also limited in risk-based regimes. In the sense that, if regulators choose certain risks, it is not clear whether regulated firms will be accountable when their conduct triggers other types of risks, i.e., risk ‘not-covered or less significant to regulators’ objectives.

Furthermore, when defining parameters of responsibility, it is necessary to shape public and political expectations accordingly. For instance, the former FSA designed the risk-based approach partly to clarify ‘what regulators should be expected to achieve, and thus what they should be accountable for’<sup>252</sup>. The benefit of implementing a system in these terms is that both parties - regulators and firms - know the ‘rules of the game’ from the beginning. The potential drawback here appears when there is an error in judgement, when regulators decide to assume that certain firms pose no risk when they do and vice versa.

#### **1.4.4 The adoption of Risk-based Regulation**

There are several reasons to adopt risk-based regulation. Regulators incorporate a risk-based approach to regulation seeking to improve their performance. In particular, the effective source distribution is a helpful tool when they are scarce. Similarly, when there have been changes in the regulatory architecture, i.e. mergers, divisions or creation<sup>253</sup> of regulatory bodies, the use of a risk-based regime contributes to address several organisational concerns<sup>254</sup>. Moreover, changes in the markets regulated and periods of ‘regulatory failures’ are attractive contexts where risk-based regulation germinates and develop. Most notably, risk-based regulation is adopted as a functionally efficient tool for improving ‘better’ regulation<sup>255</sup>. ‘Better’ regulation<sup>256</sup> is a movement that aims to

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<sup>252</sup> Black, ‘The Emergence of Risk-Based Regulation and the New PRM (n 9).

<sup>253</sup> ‘Another important role of risk-based approaches may be to serve as an integrative template for new regulatory organisations. Hutter, *The Attractions of Risk-Based Regulation*’ (n 168).

<sup>254</sup> Black, ‘Risk and Regulatory Policy: Improving the Governance of Risk’ (n 149) 189.

<sup>255</sup> In the UK, regulators are now subject to new statutory duties of ‘better regulation’ set out in the Compliance Code. These include the requirement to adopt a risk-based approach to inspection (DBERR, 2007).

improve the quality of the regulatory environment<sup>257</sup> by devoting attention to regulatory policies, tools and institutions<sup>258</sup>.

Beyond the broader motivations to use risk-based regulation regimes, regulators use these frameworks to serve more immediate purposes. For instance, to gather information on the regulated population more efficiently, and in that way to improve compliance<sup>259</sup>. One example is the supervision of CCPs in the OTCDM. The rationale of the risk-based regime is that CCPs will gather information of a large portion of transactions and participants. CCPs will contribute to the supervision by making that information available to regulators.

#### 1.4.5 Drawbacks of the Risk-based Regulation

Despite the claimed benefits of risk-based regulation, it also has some important drawbacks. The first challenge of risk-based approach is the need for the regulator to clearly identify its objectives and the risks that the regulated firms may present in achieving those objectives<sup>260</sup>. As was explained before several factors influence the identification of risks and how it is matched to regulators objectives. Similarly the assessment of risks<sup>261</sup> might be difficult, regulators need to evaluate the distinction between intrinsic dangerousness of the activity and the propensity of a firm's internal control to mitigate or exacerbate those risks. Moreover, the initial identification and evaluation of risks needs to include not only present but future risks<sup>262</sup>. To be effective, such assessment of risk needs to go beyond the individual firm<sup>263</sup>, and to integrate firms' risks with industry wide risk assessments. The difficulty is, however, to reconcile the

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<sup>256</sup> Neil Gunningham, Peter N. Grabosky, Darren Sinclair, *Smart Regulation* (Oxford, Clarendon Press 1998).

<sup>257</sup> OECD, 'Regulating Policies in OECD Countries' (OECD, Paris, 2002).

<sup>258</sup> Robert Baldwin, 'Is better regulation smarter regulation?' (2005) Public Law (Autumn) 489.

<sup>259</sup> Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 212.

<sup>260</sup> Baldwin, Cave and Lodge, *Understanding Regulation* (n 3) 281.

<sup>261</sup> *ibid.*

<sup>262</sup> Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 193.

<sup>263</sup> *ibid.*

individual evaluation of the firm and its portfolio with the assessment of industry risk and portfolio.

Some other drawbacks of the risk-based regulation are related to the capacity of regulators to implement the approach. The implementation of the approach is successful when regulators have sufficient access to information and specialised knowledge<sup>264</sup> of the regulated market. The effective analysis and use of the data collected allow a better understanding of the particularities of firms and markets, as well as the risks they face on a daily basis.

Similarly, the implementation of the risk-based approach requires being clear about how the risk evaluations will be used as ‘drivers’ of regulatory actions. It is to identify intervention tools that are likely to have the most potential and provide a rational and defensible basis for decisions<sup>265</sup>. It is to put a risk-based system into effect, attending to the broader institutional and political context that regulators face, akin to ensuring that the various strategies do not undercut each other or the rationale of risk-based regulation itself<sup>266</sup>.

Each regulator has the discretion to integrate risk assessment with supervisory response. However, the initial identification and assessment of risk inform the allocation of resources and the method of enforcement. The interaction between regulators’ risk assessments and a particular enforcement approach depends on the design of the enforcement strategy<sup>267</sup>. The coherent integration of risk assessment and effective enforcement might be achieved by several means: for instance, by creating integrated inspection and enforcement teams, or by designing intervention strategies directly linked to the level of risk. One example of specialised supervision teams is the new Directorate for FMIs created within the Bank of England. Recognising the systematic importance of

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<sup>264</sup> *ibid.*

<sup>265</sup> Black and Baldwin, ‘When RBR aims low: A strategic framework’ (n 155) 131.

<sup>266</sup> Baldwin, Cave and Lodge, *Understanding Regulation* (n 3) 287.

<sup>267</sup> Black, ‘Risk and Regulatory Policy: Improving the Governance of Risk’ (n 149) 215.

FMIIs, the new Directorate<sup>268</sup> will conduct a more intense supervision of all of them, including CCPs.

The effective implementation of risk-based regulation determines whether the approach accomplishes the aim of changing regulated firms' behaviour<sup>269</sup>. In this area there is an interesting debate. On the one hand, Gray and Hamilton assert that 'risk-based systems have the potential to reshape relationships between those who govern and those who are governed, to embed norms of behaviour, to attribute blame and to define and delimit both responsibility and accountability'<sup>270</sup>. On the other hand, Black and Baldwin argue that risk-based regulation is limited to one part of the task because there is a gap between the risk-based assessment and the enforcement process. They argue that such a gap exists because while the intervention in risk-based regime is driven by risk, the enforcement approach considers that the regulatory response depends on the attitude of the regulated firms and their capacity to comply<sup>271</sup>. This means that in order to determine the right enforcement action - whether compliance or deterrence - it is necessary to identify if regulatees form a cohesive group or a sum of disparate groups. Hence, the regulator should choose a range of enforcement methods in the pursuit of compliance.

Similarly, risk-based regulation has an impact in regulators' culture and behaviour<sup>272</sup>. As was explained before, the risk-based regulation is a strategy that represents the 'route-map' of regulation. Hence, the implementation of risk-based regulation implies that regulators have a complete understanding of the approach. However, this is a progressive process and it should involve all levels of the regulatory agency, i.e., senior management and staff. In this point, it is

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<sup>268</sup> The Bank of England's supervision of Financial Market Infrastructures. Annual Report. March 2015

<sup>269</sup> Cento Veljanovski, 'Strategic use of Regulation' in Baldwin, Cave, and Lodge, *The Oxford Handbook of Regulation* (n 8) 1.

<sup>270</sup> Gray and Hamilton, *Implementing Financial Regulation* (n 10) 1.

<sup>271</sup> Black and Baldwin, 'When RBR aims low: A strategic framework' (n 155) 132.

<sup>272</sup> Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 190.

advisable to develop internal systems<sup>273</sup> to ensure that supervisors are implementing the framework as it was designed and bearing in mind the projected outcomes. Regulators should apprehend the risk-based approach in the stage of design, and even more importantly in the phase of implementation. This is to put in place an organisational culture guided by the approach.

The organisational culture<sup>274</sup> is a key element of an efficient risk-based approach. Such organisational culture guided by the risk-based approach should be consistent in the design and the implementation stages. Otherwise, the regime will be frustrated in phase of implementation and in turn, it will not deliver the expected outcomes, it will partially accomplish the regulatory objectives. Organisational culture implies that regulators should be sufficiently trained not only in the mechanics of risk assessment, but also in the whole rationale of risk-based regulation<sup>275</sup>. Moreover, it includes understanding the behaviour of regulators in performing risks assessment. This is whether regulators understand the firms and markets they supervise, and how regulated firms respond to the implementation of the regime. It also considers, particularly in financial regulation, the assessment of firm's internal control and management of risk. The challenge in this area is to clearly identify whether the system of firm's internal control is in practice contributing to manage risks, or it is creating risks i.e., control creates itself risks<sup>276</sup>.

The findings of this research show how the inconsistency between design and implementation affects the achievement of the regime objectives. UK regulators do not understand the whole rationale of risk-based regulation. As a result, their regulatory actions are limited to identify and assess the most prominent risks present in the OTCDM and in particular those posed and faced by CCPs. However, there is no awareness regarding the distinction between ensuring mechanical compliance of the regime and the implementation of the

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<sup>273</sup> *ibid.*

<sup>274</sup> Black, 'The Development of RBR in Financial Services' (2004) (n 4).

<sup>275</sup> Black, 'Risk and Regulatory Policy: Improving the Governance of Risk' (n 149) 207.

<sup>276</sup> *ibid* 208.

risk-based approach to regulation. The lack of understanding regarding the elements of risk-based approach is manifest for two reasons. On the one hand, in the interviews conducted during this research, officials from the FCA and BoE seemed not to be familiar with the philosophy behind risk-based approach to regulation or with the way it interacts with other strategies of regulation, such as judgement-based and meta-regulation. On the other hand, in the UK regime of CCPs in the OTCDM there is a huge fracture in the design of the approach -in particular the mandates of the Bank of England and the FCA- and the implementation of the two pillars of the regime. Whilst the pillar of prudential supervision carried out by the Bank of England is, in general, well designed and its implementation is presumably making OTC derivatives market more resilient; the conduct of business is completely absent and so it is the role of the FCA as conduct regulator of CCPs.

To sum up, this Part has explained the dynamics of the risk –based regulation by highlighting the benefits, limits and complexities tied to the adoption of this approach to regulation. The risk-based regulation is a comprehensive control strategy<sup>277</sup> that assists regulators in the efficient supervision. The two pillars conduct of business and prudential supervision provide an organised structure to regulation. Nonetheless, as any other strategy, it is limited in some other aspects. To overcome its drawbacks, risk-based regulation needs to be designed and implemented to deal adequately with the challenges and critiques discussed. One alternative is to combine risk-based approach with other strategies of regulation.

For instance, in 2013 the UK financial regulators decided to integrate the risk-based regulation with the judgement-based approach. This integration of multiple strategies is expected to improve, complement and reinforce the conduct of supervision. Following this line of thought, the next section explains the

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<sup>277</sup> Regulatory strategies and particularly the Command & Control (C&C) regulation: ‘the force of law is used to prohibit certain forms of conduct, to demand positive actions, or to lay down conditions for entry into a sector’ Baldwin, Cave and Lodge, *Understanding Regulation* (n 3) 105.

content of the judgement-based approach, and addresses the question of how it complements the risk-based approach in the UK financial regulation.

### **1.5 Complementing the ‘traditional risk-based approach to regulation’**

Along with the reforms of the regulatory architecture in the UK and the adoption of a twin peaks system, there has also been an emphasis on integrating other strategies to regulation to the inherited risk-based approach. To that end, UK regulators decided to adopt judgement-based regulation.

#### **1.5.1 Judgement-based Regulation**

With the adoption of the Financial Services Act 2012, judgement-based regulation was launched as a new approach to regulation and supervision. Not surprisingly regulators have high expectations and confidence in their capacity to implement the approach<sup>278</sup>. The approach presupposes that regulators will have greater discretion<sup>279</sup> to exercise their powers and as a result supervision will be more intrusive. Among other aspects, the mechanical compliance assessment and the ‘tick-box’ exercise are replaced by the use of pre-emptive tools in the detection of future risks<sup>280</sup>.

Regulation always involves judgement<sup>281</sup>. The difference is on the degree to which judgement is based on observable facts, as opposed to the degree to which it is based on what might happen in the future<sup>282</sup>. Thereby, when adopting

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<sup>278</sup> ‘An emphasis on the role of judgement on what is going to keep the financial system safe, competitive and prosperous’. Draft Financial Services Bill- Draft Financial Services Bill Joint Committee, Contents (19 December 2011) para 188.

<sup>279</sup> ‘Apparently judgement-led regulation implies that more discretion will be afforded to the new regulators; however, even this is doubtful (...) It would be a mistake to suppose that the PRA and the FCA will enjoy greater discretion simply because they will possess more powers to intervene proactively’. Andromachi Georgosouli, ‘Judgement-led regulation: Reflections on data and discretion’ (2013) 14 J.B.R.3/4 July-Nov.

<sup>280</sup> FSA, ‘The FCA approach to regulation’ (FSA, June 2011) ch 5 (para 5.6 to 5.9).

<sup>281</sup> Sants, H. Draft Financial Services Bill, (2012) para 190.

<sup>282</sup> Georgosouli, ‘Judgement-led regulation’ (n 278).

judgement-led regulation, it is pivotal to clearly set out the degree of discretion regulators will have. This is translated into powers of intervention and the expectation that regulators will be more intrusive in order to pre-empt the materialisation of future risks<sup>283</sup>, this features the forward-looking character of judgement-led regulation.

Risk-based regulation, which will be continuously guiding the regulation approach in the UK, is completed with the judgement-based approach<sup>284</sup>. This is because the latter requires a regulatory approach that takes into account risks that may pose a threat to the financial stability<sup>285</sup>. Hence, the early intervention powers conferred to regulators in the judgement-based approach, overcomes the drawback of risk-based regimes concerning the gap between risk assessment and the implementation. Similarly, the forward-looking character of the judgement-based approach completes the risk-based approach when it aims to educate firms by setting examples of conduct that must be avoided in the future<sup>286</sup>. As the risk-based regulation heavily relies on a strategy that is focused on the quality of a firm's internal controls, judgement-led approach might contribute to enhance the standards of conduct of regulated firms, making them consistent with regulators' objectives.

The implementation of a judgement-led approach is proactive in its nature. Along with the leading role of regulators, it calls for the active involvement of regulated firms. The rationale is to allow discretion within the frame and control of regulators. Hence, firms will 'be granted freedom' to manage their affairs according to the expected outcomes set by regulators<sup>287</sup>. From this it follows that the firms' internal control systems are expected to guarantee full disclosure to the regulator<sup>288</sup>. Therefore, there must be a greater

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<sup>283</sup> *ibid.*

<sup>284</sup> 'Each era has its dominant mood music and it is clear that it is now set to be 'judgement-led supervision' just as that of the part two decades has been 'risk-based supervision' within its attendant framework of 'principles-based regulation'. Julia Black, 'The Rise, Fall and Fate of Principles Based Regulation' (2010) LSE Law, Society and Economy Working Papers 17.

<sup>285</sup> Georgosouli, 'Judgement-led regulation' (n 278).

<sup>286</sup> *ibid.*

<sup>287</sup> Rosa Lastra, 'Defining forward looking, judgement-based supervision'(2013) 14 J.B.R.3/ 4 July-Nov.

<sup>288</sup> Georgosouli, 'Judgement-led regulation' (n 278).



willingness to comply with supervisors' instructions and directions. It also requires firms to cooperate with regulators by making available all its resources and expertise<sup>289</sup>. Although successful implementation of the judgement-based approach includes an undeniable component of self-regulation<sup>290</sup>, it is also true that the approach is very much in line with 'the change in the character of financial regulation away from facilitating market discipline and towards providing the public good of consumer protection and financial stability'<sup>291</sup>.

The contradictors of integrating risk-based and judgement-based approaches argue that adoption of risk-based regulation undermines the judgement-led approach. They argue that risk-based regulation 'makes assumptions about risk and about the likely impact of risk materialisation'<sup>292</sup> and that those assumptions may be mistaken from the outset. However, this critique fails to consider the entire concern. The real debate is not solely on the assumptions about risks but in the decision of taking pre-emptive actions, and how to measure the quality of such judgements. In particular, whether regulators would be accountable for the outcome of the pre-emptive actions they took. Such a critique could be overcome by implementing strong and updated methods of risk-assessment and reasoned and accountable decision-making process.

Despite the benefits of judgement-led regulation, regulators still face some challenges when implementing the approach. Firstly, the access to data provided by regulated firms is in the midst of the discussion. Firms are expected to submit all the relevant information that will allow the regulators' intervention, the communication of system-wide risk and the prescription of certain modes of action. The access to information is the first step to anticipate, when possible, the risk and its occurrence. However, it is equally important that all the collected data is efficiently analysed in order to avoid spending valuable time on analysis rather than on taking action.

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<sup>289</sup> Lastra, 'Defining forward looking, judgement-based supervision' (n 286).

<sup>290</sup> Georgosouli, 'Judgement-led regulation' (n 278).

<sup>291</sup> Andenas and Chiu, *The Foundations and Future of Financial Regulation* (n 296).

<sup>292</sup> *ibid.*.

Additionally, the supervisory data requires a determination of how intrusive should a supervisor be ‘in order to operationalize a more forward-looking and judgement-led approach to supervision’<sup>293</sup>. In this sense, the UK authorities have introduced reforms to strengthen the supervisors’ powers to collect data<sup>294</sup>. However, the key of the debate is centered on effective analysis and use of the collected data, and how it guides supervisors’ judgement when taking supervisory actions.

The second challenge in implementing judgement-led supervision is to set a clear goal and having adequate supervisory tools and resources. Rosa Lastra asserts that to be able to supervise ‘regulators must have knowledge and exercise judgement’<sup>295</sup>. Thus, regulators’ knowledge should be built upon access to adequate and complete information and regulators’ familiarity with market dynamics and evolution.

There is also the debate on whether the adoption of rule-based regime can fill the gaps related to the insufficient protection to society when regulators exercise judgement. In other words, whether the judgement is limited and the rules can complement it. This is particularly important in the case of complex structures or products used by financiers with the purpose of avoiding regulation and control. Thus, it is desirable to reach a coherent dialogue between rules and discretion-judgement. This is to understand that the balance between rules and discretion is different in each of the supervisory stages<sup>296</sup>.

To sum up, the judgement-based regulation helps to overcome some of the drawbacks of the risk-based approach. However, the road of designing the best version of a risk-based regime needs to go beyond. It needs to consider the role that regulated firms have in the stage of implementation. Even though there might be room for debate, there is a general acceptance that meta-regulation

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<sup>293</sup> Joanna Gray and Peter Christian Metzing, ‘Defining and delivering judgement-based supervision: The interface with the legal system’. (2013) 14 J.B.R. 3/4 July/Nov.

<sup>294</sup> Tucker, P. ‘The debate on financial system resilience: Macro-prudential instruments. Speech to Barclays Annual Lecture. London, 22 October 2009.

<sup>295</sup> Lastra, ‘Defining forward looking, judgement-based supervision’ (n 286).

<sup>296</sup> Rosa Lastra identifies three stages of the supervisory process: the entry into the business, the supervision *stricto sensu* and the sanctioning. *ibid*.

assists risk-based regimes. The next section explains the content of meta-regulation and how it contributes to boost the risk-based approach to regulation.

### 1.5.2 Meta-regulation of the OTC Derivatives Market

The Meta-regulation as a regulatory strategy is one example of the decentered regulatory space<sup>297</sup>. Regulated firms are expected to produce internal governance and controls that contribute to the public justice of accountability<sup>298</sup>. Along with risk-based regimes meta-regulation has been heralded as one of the hallmarks of the ‘new regulatory state’<sup>299</sup>. Hence, the strategy permeates two of the functions carried out by supervisors in risk-based regimes, namely micro-prudential regulation and risk management<sup>300</sup>. The rationale is that regulated firms become centres of self-control that facilitate the achievement of public regulatory needs in pursuing safe and sound financial institutions<sup>301</sup>. However, one disadvantage arises when the firm’s internal control system is oriented to different ends to those of the regulator<sup>302</sup>.

Meta-regulation involves cooperation between regulators and regulated firms. The cooperation is guided and controlled by regulators. This means that regulated firms count with broad frameworks<sup>303</sup> that illustrate the shape of internal control systems and governance, risk management systems, internal audits and so on. The task is to develop firm-based systems and procedures accordingly. Such firm-based systems will complement regulatory actions, since regulators cannot excessively prescribe the firm organisational structures. The expected outcome is that regulated firms will design the internal organisation to

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<sup>297</sup> Mad Andenas and Iris H-Y Chiu, *The Foundations and Future of Financial Regulation: Governance for Responsibility* (Routledge, 2014).

<sup>298</sup> Christine Parker, *The Open Corporation* (Cambridge University Press, 2000) 246.

<sup>299</sup> Peter Grabovsky, ‘Using Non-Governmental Resources to Foster Regulatory Compliance. (1995) 8 GOVERNANCE 4, 529.

<sup>300</sup> Andenas and Chiu, *The Foundations and Future of Financial Regulation*’ (n 296).

<sup>301</sup> *ibid.*

<sup>302</sup> Grabovsky, ‘Using Non-Governmental Resources to Foster Regulatory Compliance’ (n 298) 529.

<sup>303</sup> In the EU, the markets in Financial Instruments Directive 2004 (MiFID) provides for broad principles of organisational soundness.

achieve a proportionate and appropriate form of compliance to meet regulatory objectives<sup>304</sup>. Nevertheless, one foreseeable issue is how regulators can effectively assess the risk management systems that will reflect the conflict of interest between firms and regulators inner interests<sup>305</sup>. In other words, the issue meta-regulation faces is that while firms design and conduct risk management systems bearing their own interests, regulators are not able to critically evaluate those systems in light of regulatory objectives.

Baldwin and Black<sup>306</sup> propose the adoption of really responsive regulation to solve this issue. The really responsive regulation model implies that regulatory strategies are not designed to be solely adapted to the behaviour of regulatees. They should seek to establish a synergy between punishment and persuasion<sup>307</sup>. To this end, the responsive regulation reaches compliance when regulators operate an explicit enforcement pyramid<sup>308</sup>. According to the enforcement pyramid, governments should seek to offer self-regulatory solutions but, if the regulatory objectives are not met, the State should escalate to enforce such self-regulation to command regulation with discretionary or non-discretionary punishment<sup>309</sup>.

Furthermore, responsive regulation is attentive to five key factors, namely: ‘the behaviour, attitudes, and cultures of regulatory actors, the institutional setting of regulatory regime, the interactions between the different logics of regulatory tools and strategies, the regime’s own performance over time, and the changes in each of these elements’<sup>310</sup>. These factors are considered to be in the core of the regulators’ role and are central challenges to achieve

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<sup>304</sup> Andenas and Chiu, *The Foundations and Future of Financial Regulation*’ (n 296).

<sup>305</sup> *ibid.*

<sup>306</sup> Black and Baldwin, ‘Really responsive Risk-based Regulation’ (n 8).

<sup>307</sup> Ayres and Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (n 114) 25.

<sup>308</sup> ‘The Model of responsive regulation was introduced together with the concept of enforcement pyramids. The three theories are: Smart Regulation, Problem-centered regulation and really responsive regulation’ Black and Baldwin, ‘Really responsive Risk-based Regulation’ (n 8) 259.

<sup>309</sup> *ibid.*

<sup>310</sup> *ibid.*

regulatory objectives over time<sup>311</sup>. In addition to these factors, the really responsive regulation ought to consider the way that regulatory challenges vary across the core regulators' tasks with respect to individual firms and in developing strategies<sup>312</sup>. A novel element of the really responsive regulation model is the early identification of undesirable and non-compliant behaviour. This allows regulators to develop tools and strategies, assess the outcomes, and then reform the regulatory actions accordingly. This is closely linked to the enforcement strategy that combines elements of compliance and deterrence; it is accomplished through a system of incentives and different levels of civil, administrative and, as a last resort, criminal sanctions.

Attending to the participation of market actors in the regulatory process, this research supports the argument that meta-regulation is applicable to the OTCDM. In particular, it considers how certain features of the meta-regulation can be articulated with the regime adopted by the Bank of England and the issues it brings to the supervision. The Bank designed the supervision regime to cover both 'design of Financial Market Institutions -including CCPs- rules and the use of management discretion in the application of these rules'<sup>313</sup>. This means that CCPs, as market participants, will have a certain level of discretion to implement the new regulation. Thus, this research questions the limits of the CCPs' discretion in front of the authorities' power and how this could adversely affect the implementation of the new rules.

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<sup>311</sup> 'A judicious mix of compliance and deterrence is likely to be the optimal regulatory strategy (...) Good regulation means invoking different responsive enforcement strategies depending upon whether one is dealing with leaders, reluctant compliers, the recalcitrant, or the incompetent'. Neil Gunningliam, 'Enforcement and Compliance Strategies', in Baldwin, Cave, and Lodge, *The Oxford Handbook of Regulation* (n 8).

<sup>312</sup> *ibid.*

<sup>313</sup> Bank of England, 'The Bank of England's approach to the supervision of financial market infrastructures (April 2013).

## 1.6 The evolution of risk-based regulation in the United Kingdom Financial Services

The evolution of financial regulation in the UK has been marked by the implementation of several and complementary strategies of regulation, from rule-based, standard-based, principles-based to risk-based regulation, and lately the judgement-based regulation.

In 2006 the UK Chancellor presented three initiatives<sup>314</sup> to reform domestic financial regulation, namely: the Hampton Review<sup>315</sup>, a set of recommendations published by the Cabinet Office entitled ‘Regulatory Justice: making sanctions effective’, and a review of the way in which EU legislation is implemented into the UK. The Hampton Review explained how the risk-based approach would be applicable to all regulatory bodies in line with the Regulators’ Compliance Code. Accordingly, regulators were expected to use comprehensive risk assessments to concentrate resources on the areas that need them most. Moreover, the Review emphasises that regulators should be accountable for the efficiency and effectiveness of their activities, and should provide authoritative, accessible advice easily and cheaply.

Immediately after the episode of Northern Rock plc<sup>316</sup> in mid-September 2007,<sup>317</sup> the critiques<sup>318</sup> and public scrutiny turned towards the efficacy of financial regulation<sup>319</sup> and regulators accountability<sup>320</sup>. The Bank of England

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<sup>314</sup> Joanna Gray, ‘Risk based Regulation moves further centre stage’ (2006) *Financial Regulation International*, December 1, 1.

<sup>315</sup> *Hampton Review* was commissioned in 2004 by the Cabinet Office, Better Regulation Task Force and HM Treasury.

<sup>316</sup> Financial Services Authority, *Internal Audit Report on Northern Rock* (FSA, London, 2008).

<sup>317</sup> House of Commons Treasury Committee Report, *The Run of the Rock*. (26 January 2008).

<sup>318</sup> Julia Black, ‘Forms and Paradoxes of Principles-based Regulation’ (2008) 3CMLJ 4, 425.

<sup>319</sup> Stuart Bazley, ‘The Financial Services Authority, risk-based regulation, principles based rules and accountability’ (2008) J.I.B.L.R 422, 1.

<sup>320</sup> ‘But the type of risk that dominates the narrative of blame now developing around financial regulation is not the risk of loss to depositors in an individual institution (...) Instead it is the risk of damage to confidence and trust in the safety and soundness of the financial system itself (...)’

nationalised Northern Rock plc after it began to experience problems in raising short-term funds and rolling over existing loans from wholesale lenders<sup>321</sup>. With a relatively small deposit base, Northern Rock plc used securitization of mortgages and other capital-markets funding to grow rapidly to a nearly 19% share of the British mortgage market by the first half of 2007. After the announcement of the Bank of England's support package, the former FSA led further reforms of the UK financial regime.

In 2007 and 2008, the former Financial Services Authority<sup>322</sup> set out the strategy for 'future financial regulation' in the UK. John Tine, FSA's CEO at the time, explained that the new approach emphasised the adoption of principles and high-level rules, and not prescription or processes. It was focused on the outcomes to be achieved in the financial services market and on directing supervision to assess how this could be achieved<sup>323</sup>. As a result, the principles-based regulation (PBR) approach was introduced aiming to overcome the shortcomings of the existing risk and evidence-based regulatory regime. The main benefits expected from the PBR were 'increased flexibility, compliance and support and more generally the development of a more cooperative, and consequently more effective, regulatory culture'<sup>324</sup>. The PBR was the attractive approach for regulation not only in the UK. Indeed, Ben Bernanke, the chairman of the Federal Reserve, replicated this movement of support for the Principles Based Regulation (PBR)<sup>325</sup>. He criticised the heavy rules-based systems that had

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To what extent are regulators responsible for the maintenance of such confidence?'. Joanna Gray, 'Northern Rock: Systemic, Liquidity and Credit Risk-Lessons for risk-based regulation?' (2007) Financial Regulation International, October 1, 1.

<sup>321</sup> 'Northern Rock originally experienced wholesale funding difficulties in August 2007 and was forced to approach the Bank of England for emergency support which was agreed on 13 September. A withdrawal of deposits (run) began following the BBC's leaking of the loan package. The Treasury issued an initial guarantee of deposits on 17 September which was extended on 20 September and then again on 9 October 2007' George Walker, 'Northern Rock-National Audit Office Report' (2009) Financial Regulation International, Jun 1, 1; George Walker, 'Regulatory Review- Northern Rock, financial completion and financial shock (Part I)' (2008) Financial Regulation International, February 1<sup>st</sup>, 3.

<sup>322</sup> FSA, Principles-Based Regulation- Focusing on the outcomes that matter (April, 2007).

<sup>323</sup> George Walker, 'Quarterly review- regulatory principles, efficiency and financial stability'. (2007) Financial Regulation International, June 1, 1; Joanna Gray, 'Principles-based regulation: FSA's dominant theme for 2007/2008' (2007) Financial Regulation International, March 1<sup>st</sup>, 1.

<sup>324</sup> *ibid.*

<sup>325</sup> Financial Times, 16 May 2007.

been in place since the 1930s in the US, and how such system was no longer appropriate in dynamic modern financial markets<sup>326</sup>.

As initially explained by the chairman of the former FSA, the 'FSA has and will always have a mixture of general principles and particular rules', therefore the FSA's drive towards greater principles-based regulation should be carefully implemented in terms of the frequent divergence between specific compliance of rules and the interpretation of general principles<sup>327</sup>. These foreseeable issues of the PBR made the FSA work into its enforcement architecture and to provide clearer and more practical guidance to regulated firms<sup>328</sup>. Thus, the industry was invited to issue the guidance, subject to the FSA approval<sup>329</sup>.

The implementation of risk-based regulation in the UK financial system<sup>330</sup> started with the declaration of the former Financial Services Authority<sup>331</sup><sup>332</sup>. The evolution and implementation of this strategy resulted in the system called ARROW (Advanced Regulatory Risk Operating Framework), 'a cognitive, procedural and organisational device which is still evolving and being refined'<sup>333</sup>. The system is used to determine regulatory priorities and resource allocation, to assess firm specific risk for monitoring purposes; to assess market and industry wide risks to determine policy projects on an annual basis; to assess

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<sup>326</sup> Walker, 'QR - regulatory principles, efficiency and financial stability' (n 321) 3.

<sup>327</sup> Gray, Principles-based regulation (n 321) 2.

<sup>328</sup> Joanna Gray, Principles-based regulation takes further shape: new industry guidance is confirmed. (2007) Financial Regulation International, September 1, 1.

<sup>329</sup> Financial Services Authority, 'FSA Policy Statement 07/16: FSA Confirmation of industry guidance.

<sup>330</sup> Part of the risk-based approach, are the risk-assessment procedures developed by some FSA's predecessors bodies. i.e., Bank of England developed the RATE (Risk Assessment Tools of Supervision and Evaluation; and the Securities and Futures Authority developed FIBSPAM (Financial Stability, Quality of Systems and Internal Control Quality of Business Supervisory Complexity, Quality of Personnel and Management).

<sup>331</sup> FSA, *Financial Services Authority: An outline* (October, 1997) 31.

<sup>332</sup> Under the governing statute, the Financial Services and Markets Act 2000, the FSA was given four statutory objectives, and given seven further elements that it is required by statute to take into account in performing its functions. The objectives are the maintenance of Market confidence, the provision of the appropriate degree of protection for consumers, the reduction in the scope for financial crime, and promoting public understanding of the financial system.

<sup>333</sup> Black, 'The Development of RBR in Financial Services' (2004) (n 4)17.



changes in regulatory scope (e.g. additional responsibilities) and integrate them into regulatory prioritisations<sup>334</sup>. The development of the risk-based regulation by the former FSA and the Bank of England is the result of a search for legitimacy, and the need to become more proactive in supervising the UK's financial system<sup>335</sup>.

ARROW includes seven 'risk-to-objectives' or RTOs, i.e., financial failure, misconduct or mismanagement, consumer understanding, fraud and dishonesty, market abuse, money laundering, and market quality. When identifying and assessing this set of risks, the FSA, in turn, identified three sources of risk, i.e. the external environment, consumer and industry wide developments, and regulated institutions.

Subsequent reviews were conducted to improve the content of ARROW<sup>336</sup>. The first change was to move from prudential regulation towards conduct regulation, while the second change involved a redistribution of sources according to levels of risk.

Several consequences arise from the FSA's adoption of risk-based regimes. Joanna Gray<sup>337</sup> identifies that one of the most significant consequences is the increasing impact of broader principles linked to regulators' statutory objectives. It is clear how the relationship and interaction between PBR and risk-based regulation needs closer analysis. Such analysis should consider the risk of creating expectations of a 'zero-failure world', and also the risk of creating moral hazard. In the context of this research, the use of risk-based approach allows regulators to consider the potential risks created by the regime of CCPs and the

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<sup>334</sup> FSA, *Building the New Regulator: Progress Report 1* (London: FSA, December 2000) (PR1); FSA, *Building the New Regulator: Progress Report 2* (London: FSA, February 2002) (PR2); FSA, *The Future Regulation of Insurance: A progress Report* (London: FSA, October 2002) (PR3); FSA, *The Firm Risk Assessment Framework* (London: FSA, February 2003) (FRAF).

<sup>335</sup> Black, 'The Development of RBR Just 'Modelling Through'?' (n 147).

<sup>336</sup> Black, 'The Emergence of Risk-Based Regulation and the New PRM (n 9).

<sup>337</sup> Gray, 'Is it time to highlight the limits of risk-based financial regulation? (n 13).

challenges in its implementation. In particular, to reflect on whether the focus on certain types of risk contributes to achieve the resilience of the OTC derivatives market.

### **1.6.1 Risk-based Regulation of CCPs in the OTC Derivatives Market**

Although the risk-based regulation started with the FSA, the two new UK supervision authorities Prudential Regulation Authority (PRA)<sup>338</sup> and Financial Conduct Authority (FCA) are also implementing such an approach to regulation. However, each of them is developing separate risk assessment frameworks. The PRA will design and implement a risk assessment for prudential issues and the FCA for conduct of business. This research argues that Central Counterparties CCPs in the UK OTCDM should be regulated and supervised by the FCA in the matters of conduct of business, and by the Bank of England for prudential matters.

The Financial Conduct Authority (FCA) is responsible for regulating conduct in retail and wholesale markets (including both exchange-operated markets and OTC dealing), supervising the trading infrastructure that supports those markets, and for prudential regulation of firms not prudentially regulated by the Prudential Regulation Authority (PRA).

Even though the regulation and supervision of clearing and settlement systems (trading infrastructure), including Central Counterparties CCPs, was expressly assigned to the Bank of England, it has been stated that in its supervision the Bank will work closely with the Financial Conduct Authority,

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<sup>338</sup> Proposed reforms will replace the PRA with the Prudential Regulation Committee of the Bank of England. Bank of England and Financial Services Bill 2015-2016

reflecting the FCA's responsibilities for the trading infrastructure and market product<sup>339</sup>.

The risk-based approach entitles the FCA to detect and act on risks that are identified in the market place, ensuring that potential problems are identified early to meet the FCA objectives<sup>340</sup>. The FCA has explained its approach to risk-based regulation through the steps it will use, namely: to identify and assess risks both emerging and current to consumers and firms; to identify the risks that market failures exist that impede effective competition in relevant markets; to develop a general understanding of the risks and issues in financial markets to support authorisation, supervision and enforcement functions; to prioritise, manage and mitigate risks consistently and use a risk-based approach for making decisions; to establish common standards and principles for measuring and assessing risk across the organisation; and to put in place the infrastructure, systems and tools to catalogue, analyse and assess risk<sup>341</sup>.

The Bank of England is responsible for regulating and supervising post-trading market infrastructures, within them Central Counterparties CCPs, of the OTCDM. To this end, the BoE has set out some Key Supervisory Pillars, anticipating that 'its supervisory effort is based on its assessment of where risks to financial stability are greatest'<sup>342</sup>. In general, the supervision lies on systemic risk management<sup>343</sup> through the principles of: governance, management of operational risk, continuity of service and adequate rules in case of participants' default. Certainly, some of the elements announced on the BoE policy documents could be indicative of the adoption of a risk-based approach; however, there is not an explicit mention of the adoption of such an approach. This raises some concerns regarding the coherent approach to regulation and supervision of Central Counterparties. This is because the findings of this research show that the

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<sup>339</sup> List the MoUs between the FCA and the BoE.

<sup>340</sup> The FCA's approach to advancing its objectives (July, 2013)

<sup>341</sup> *ibid*

<sup>342</sup> Bank of England, 'The Bank of England's approach to the supervision of financial market infrastructures (April 2013) 7

<sup>343</sup> *ibid*

FCA and the BoE are not following a consistent risk-based approach to the regulation and supervision of CCPs.

The development of the risk-based regulation approach is focused on the management of systemic risk<sup>344</sup>. Hence, the after-crisis regulatory reforms highlighted the need to oversee macro and micro-prudential matters so as to reduce systemic risks<sup>345</sup>. The aim is to avoid gaps in regulation, which could materialise into possible systemic risks. Therefore, one of the remedies for mitigating potential systemic fragilities is to monitor and constrain the behaviour of key financial institutions<sup>346</sup> and intermediaries. In the case of the OTCDM, the regulatory response to the system failure of a fragile market infrastructure is the adoption of the Central Counterparties CCPs, to mutualise trading risk and enhance system stability<sup>347</sup>.

## 1.7 Conclusion

Risk is central to financial regulation. The rationale of the risk-based approach to regulation implies that regulators ought to recognise the difference between risks and uncertainties, and hereby the limits and opportunities that such a distinction brings to the process of regulation. Whilst risks are measurable and quantifiable, uncertainties stem from qualitative judgements or predictions. However, the traditional dichotomy is not always clear, as risks and uncertainties easily overlap. Hence, risks and uncertainties might align and form a hybrid system, where the role of each category in the regulatory process is established from the outset. This is that regulators acknowledge that risks are the ‘drivers’ of regulatory actions, and uncertainties, especially knowable uncertainties, are the

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<sup>344</sup> ‘Systemic risk is the probability that the financial system will fail to function as needed to support economic activity in the aggregate’. Jack Selody, ‘The nature of Systemic Risk’ in John Raymond LaBrosse, Rodrigo Olivares-Caminal and Dalvinder Singh (eds), *Managing Risk in the Financial System* (Edward Elgar Publishing Limited, 2011) 26.

<sup>345</sup> Dalvinder Singh, ‘The US architecture of bank regulation and supervision’ in LaBrosse, Olivares-Caminal and Singh (ed), *Managing Risk in the Financial System* ibid 409.

<sup>346</sup> Jack Selody, ‘The nature of Systemic Risk’ (n 342) 26.

<sup>347</sup> ibid.

‘co-drivers’ that, with a secondary function, contribute to conduct risk-based approaches to the expected outcomes.

To accept the interaction between risks and uncertainties will assist regulators in their task of managing and controlling new types of risk resulting from progression of human development, science and technology. These are ‘manufactured risks’ that challenge the idea that all risks can be measured. Moreover, the identification and assessment of different types of risks and uncertainties require that regulators interact and cooperate with regulated firms. The cooperation between regulators and regulatees will facilitate the integration of different sources of knowledge that, in turn, will inform the decision-making process concerning what risks exist, the level of tolerance, and how to control them.

The recognition of risk and uncertainties, as different elements informing regulation, reshapes and reorients the strategies attached to risk-based regimes. It also determines the limits that financial regulators face and the complexity tied to the implementation of risk-based regimes. Regulators and regulated firms are aware of the difficulties in coping with ‘manufactured risks’ and knowable uncertainties. This reality is revealed in markets as the OTCDM that are a limitless source of new risks, triggered by innovation and entrepreneurial activity.

The integration of regulators and regulated firms’ perceptions and attitudes towards risk inform the stages of risk identification and assessment, and the resulting prioritisation of resources. On the one hand, regulators conduct a process of decision-making to determine how to address and when to prioritise risks. Following this rationale, risk-based regulators are expected to develop the two stems of the approach: prudential regulation and conduct of business. On the other hand, in order to cooperate with regulators, regulated firms will adjust their

internal system of control and regulation to enable the regulator to spend fewer resources supervising.

There are several benefits of adopting risk-based regimes. It allows the design and implementation of regimes that consider unknown but foreseeable events. Risk-based approaches offer an integrated decision-making framework applicable to all levels of firms and risks. It is also argued that risk-based regimes enhance the efficient allocation of resources according to the risks regulators decide to prioritise. The exercise of such discretion limits the extent of regulators' accountability.

Despite the claimed benefits, risk-based regulation has some drawbacks. The need for the regulator to clearly identify its objectives and the risk that regulated firms may pose to the achievement of those objectives is particularly challenging. Also, the limited capability of regulators to implement the approach, and the related issues concerning access to information and specialised knowledge. Regulators are expected to make clear how risk evaluations will be used as 'drivers' of regulatory actions, and will inform the method of enforcement. Moreover, risk-based regimes are expected to accomplish changes in regulated firms' behaviour and have an impact in regulators' culture and behaviour. To overcome these drawbacks, risk-based regimes need to be designed and implemented coherently and in cooperation between regulators and regulated firms. They also need to be combined with other strategies of regulation, such as judgement-based and meta-regulation.

With the previous insights in mind, this research concludes that risk-based regulation is a partially efficient approach to regulate Central Counterparties (CCPs) in the OTCDM. It is efficient in the sense that it allows an efficient allocation of sources, which is one of the most concerning challenges of regulators. Moreover, risk-based regulation is broad enough to design and implement a regime for CCP in the OTCDM that contributes effectively to

achieve regulators' objectives. In this case, the safety and soundness of CCPs in line with financial stability.

Four points support the conclusion that the risk-based approach is efficient but still could be improved. Firstly, the decision of the Bank of England to create a special division to carry out the policy analysis and supervision of CCPs is evidence of one of the features of risk-based regulation. This is that the risk-based approach to regulation provides a means of linking the organisation enforcement resources to individual firms and activities.

Secondly, the decision of the Bank of England to intervene in the OTCDM by regulating CCPs is an example of the implementation of two elements of risk-based regulation: risk-tolerance and risk-identification techniques. The Bank identified and assessed the risks the CCPs posed to its regulatory objectives and designed the regime accordingly. In this sense, the BoE linked the risks posed by CCPs to the objective of financial stability and the safety and soundness of the CCPs. However, this element has a drawback. As was discussed, risk-based regimes involve a selection of risks that entails the correlative exclusion of other type of risks. This shortcoming is a notable feature of the UK risk-based regime of CCPs. The Bank is prioritising its regulatory actions and resources to manage credit, liquidity and operational risk, whilst other types of risk as the 'Innovation Risk' have been implicitly excluded.

Thirdly, one of the features of risk-based regulation is that it facilitates the gathering of information about the regulated population. This feature helps to understand the Bank's approach to the regulation of CCPs in the OTC derivatives market. The Bank prioritises the regulation of CCPs because they gather information of a large part of the OTC derivatives market. CCPs are channels of communication and information and, in that sense, facilitate the regulators' access to information of the market.

Finally, and more broadly, risk-based regulation assists the study, design and implementation of the regime by providing a comprehensive structure in the two traditional stems of financial regulation, namely: prudential regulation and conduct of business.

Furthermore, risk-based approach can be a useful tool to assist the regulator in the management of systemic risk, specifically in the regime of CCPs in the OTC derivatives market. Although the risk-based approach to regulation was criticised after the GFC for being slow in managing cumulative risks, it has the potential to assist the regulation of markets that might be sources of systemic risk. The key to achieve the efficient management of systemic risk is the implementation. Risk-based regulation needs to be conducted in a manner that does not place attention exclusively in the riskiest firms, but instead ensures the efficient supervision of firms at all levels of risk. The UK regime is designed and implemented to ensure that CCPs, as new intermediaries in the OTC derivatives market, are sufficiently resilient. The priority of the Bank of England is to enhance the robustness of these entities, to avoid any disturbance of their services, and to ensure they have efficient loss allocation, recoverability and resolvability rules. Risk-based regimes allow regulators to take advantage of the risk-identification, risk assessment and the respective allocation of sources to reduce, though not eliminate, the events that could trigger systemic risk. Thus, the risk-based regulation is an efficient approach to deal with systemic risk when it has been designed and implemented amidst the financial stability objective.

Nonetheless, the risk-based approach to regulation needs to be completed with other regulatory strategies. The integration of multiple regulatory strategies helps the approach to overcome its shortcomings. Complementary strategies, such as judgement-based and meta-regulation, are the most relevant for the study of the regime of CCPs in the OTCDM. Indeed, the Bank of England regime includes two elements that reflect those complementary strategies: the importance of the cooperation of CCPs in the design and implementation of the regime, and the range of early intervention tools to supervise CCPs.



## **Chapter 2**

### **Physiology of the Over-The-Counter (OTC) Derivatives Market and Post-Crisis Reform**

#### **2.1 Introduction**

The recent financial crisis had a strong impact on the worldwide economy, particularly the crisis of 2007 known as the Global Financial Crisis *GFC*. What started as a US financial market crash<sup>1</sup> resulted in a truly global crisis, impacting both financial and non-financial sectors. One of the markets involved was the derivatives market. As a result, both regulators and regulated firms are aware of the risks and uncertainties manufactured in the derivatives market, in particular in the OTCDM.

In order to understand the role of risk and risk-based regulation in the context of the OTCDM and CCPs regime, this chapter explores the rationale of derivatives as tools of distribution of risks. Following the notion of ‘manufactured risks’ of the risk society theory, it explains in detail why the OTCDM is a centre of production of risks. It also considers the post-GFC regulatory reforms and the move towards the use of CCPs. It puts forward the argument that the inclusion of CCPs in the OTCDM and the increase in mandatory central clearing adds complexity to the market, and thereby might become a source of new ‘manufactured risks’.

This chapter provides the framework of the OTC derivatives market. It is devoted to explain the physiology of Financial Derivatives. To this end, the chapter is divided into two parts. The first part addresses the fundamental questions of how financial derivatives work, with a critical overview of the uses of these transactions, and the traditional process of trading. Then, it highlights

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<sup>1</sup> Financial Crisis Inquiry Commission, *The Financial Crisis Inquiry Report* (Public Affairs New

the differences between the exchange and the over-the-counter (OTC) markets, and how the post-crisis regulatory reforms have modified the structure and functioning of the OTCDM.

Since the focus of this research is the OTCDM, the second part addresses the questions regarding the role that the OTC derivatives market played in the Global Financial Crisis, and the market failures that motivated current changes for more formal regulation and supervision. Such post-crisis regulatory reforms frame the object of study of this research, which is the major transformation of regulation and supervision of the OTC derivatives in the United Kingdom - as the biggest market of the world - and the consequent move towards the regulation of Central Counterparties CCPs, as new intermediaries of the market.

The discussion of this chapter concerning the decision to regulate CCPs in the OTCDM, as a means to enhance the stability of the market, is central to the analysis of this research. The aim is to explain the decision of UK regulators to regulate CCPs as a means of identifying, assessing and controlling the risks of the OTCDM collectively. This is instead of supervising individual firms that raise high risks.

## **2.2 Physiology of the Derivatives Market**

### **2.2.1 Defining Financial Derivatives**

Although financial derivatives have been part of commercial life for millennia –knowingly since Ancient China and Mesopotamia<sup>2</sup>, its academic conceptualisation is more recent. The first attempts to define derivatives were

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<sup>2</sup> Satyajit Das, *Traders, Guns and Money: Known and unknowns in the Dazzling World of Derivatives* (London, Prentice Hall Financial Times 2006) 23.

comprehensive<sup>3</sup> of all types of transactions that serve debt financing and raising capital<sup>4</sup>. The mainstream definitions of financial derivatives include some common features and uses of these instruments. Hence, it has been generally accepted that derivatives might be used to serve two alternative functions: to obtain funding at a preferential rate or to take speculative<sup>5</sup> advantage of a movement in a financial market for the investing institution<sup>6</sup>. However, this is a very restrictive approach, because it neglects the role of financial derivatives as tools of efficient risk management.

One primary attempt to clarify the term is to define financial derivatives as ‘A financial instrument whose value is derived from the performance of a secondary source such as an underlying bond, commodity or index’<sup>7</sup>. This definition, however, prompts more questions in order to reach a complete understanding of the instrument itself. Queries about the occurrence of some event, the pricing and risk-hedging, are not included in these ‘under-inclusive definitions’<sup>8</sup>. Alternatively, Scout defines derivatives as ‘probabilistic bets on future events’<sup>9</sup>, which potentially broaden the scheme to include as many transactions as possible<sup>10</sup>, this is an over-inclusive definition<sup>11</sup>.

<sup>3</sup> Presenting the critiques to current definitions of derivatives Timothy E. Lynch. ‘Derivatives: a Twenty-First Century Understanding’ (2011) Indiana Legal Studies Research Paper No. 187,14. <http://ssrn.com/abstract=1785634> accessed 23<sup>th</sup> October 2012.

<sup>4</sup> Schyuler Henderson, *Henderson on Derivatives* (Lexis Nexis Butterworths, 2003) 1.

<sup>5</sup> See Lynn A. Stout, ‘Why the Law hates speculators: Regulation and Private Ordering in the market for OTC derivatives’ (1999) Vol 48:701 Duke L.J. 741: ‘and since derivatives counterparty can be either a hedger or a speculator and nothing else, there are only three types of derivative contracts: (i) hedger-hedger contracts; (ii) hedger-speculator contracts; (iii) speculator-speculator contracts’. Also in Hobhouse J, ‘Morgan Grenfell & Co Ltd v Welwyn Hatfield District Council (Islington London Borough Council, Third Party)’ (1995) 3 J.F.R. & C. 2, 185 it was held that derivatives have ‘at least potentially a speculative character deriving from the fact that the obligations of the parties are to be ascertained by reference to a fluctuating market rate which may be higher or lower than the fixed rate at any time’.

<sup>6</sup> See S. Henderson speaking on December 8, 1997 at *Legal Accounting and Control Challenges of Credit Derivatives*, IBC in Alastair Hudson, *The Law on Financial Derivatives* (2<sup>nd</sup> ed, Sweet & Maxwell, 1998) 9.

<sup>7</sup> *Black’s Law Dictionary* (9th ed. 2009), available at Westlaw BLACKS.

<sup>8</sup> T. Lynch (n 3) 14.

<sup>9</sup> Lynn A. Stout, ‘Derivatives and the legal origin of the 2008 Credit Crisis’ (2011) Vol 1 Harvard Business Law Review. 1 <http://ssrn.com/abstract=1874806> accessed 23<sup>th</sup> October 2012.

<sup>10</sup> The types of derivatives that can exist are limited only by the imagination of the interested parties. Today, one can invest in weather derivatives, freight derivatives, emissions derivatives, inflation derivatives (...). See Randy Myers, ‘What every CEO Needs to Know about Weather Risk Management’ (CME Group, 2008), [http://www.cmegroup.com/trading/weather/files/WeatherRisk\\_CEO.pdf](http://www.cmegroup.com/trading/weather/files/WeatherRisk_CEO.pdf) accessed 23<sup>th</sup> October 2012.

<sup>11</sup> *ibid* 18.

Authors such as Hudson offer some broader definitions. For instance, 'Derivative is simply a financial arrangement, the value of which is "derived" from another financial instrument, index or measure of economic value (...) Financial arrangement involving mutuality and valued by reference to current market rates, prices or levels (...) Is a contract in which the parties only pretend to do something and allocate the risks and benefits between themselves as if they had done that something'<sup>12</sup>. The extent of this conceptualisation allows market actors to create any type of transactions that fall within the derivatives area. Therefore, it could be predicted that those market actors are the 'holders of knowledge' of such types of transactions, and that specialised knowledge escapes from the control of third parties, including non-specialised market participants and more importantly, for the purpose of this research, regulators and supervisors.

Such an assertive statement anticipates one of the lines of thought formulated within this research. Even after the post-global financial crisis reforms that inspired a higher level of state interventionism by means of regulation of the OTC derivatives market, there is still the need for cooperation between regulators and market actors. This is to acknowledge the benefits and limits triggered by the interaction between derivatives market actors and regulatory authorities. They examine how access to information, and understanding of the complexities of the market are part of the design, implementation and enforcement of derivatives market regulation.

The lack of certainty regarding the concept of financial derivatives has deprecated the clear notion of both regulators<sup>13</sup> and market actors. Indeed, the first approach adopted in the US to define financial derivatives is an illustrative case of how the absence of a comprehensive definition of these transactions adversely affects regulation. The initial legislative proceeding to regulate financial derivatives started at the Senate Committee on Agriculture, Nutrition and Forestry and the House of Agricultural Committee. Those first regulations,

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<sup>12</sup> Alastair Hudson, *Credit Derivatives: law, regulation and accounting issues* (Sweet and Maxwell, 1999) 63.

<sup>13</sup> Federal Reserve Bank of New York, *Policy Perspectives on OTC Derivatives Markets*, (Staff Report.n° 424, March 2010).

as Lynch explains, were conceived for non-complex transactions, mainly futures and options on agricultural commodities. Therefore, when derivatives evolved into exotic forms like synthetic collateral debt obligations or credit default swaps<sup>14</sup>, that regulation proved to be insufficient. Obviously, further changes have been introduced to US regulation since its creation; however, not all the issues of the current complex structures have been properly addressed<sup>15</sup>.

Leaving aside this theoretical discussion, this research takes the mainstream definition of financial derivatives as securities<sup>16</sup> and financial contracts<sup>17</sup> whose value is based on the level of some agreed-upon benchmark<sup>18</sup> and, in their most complex<sup>19</sup> versions, are forms of ‘financial engineering’<sup>20</sup>. The term ‘derivative transaction’ includes a wide variety<sup>21</sup> of financial transactions<sup>22</sup>. Derivatives are usually defined as ‘contracts whose value is derived from the value of another underlying asset’<sup>23</sup>; these underlying assets can be bonds,

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<sup>14</sup> T. Lynch (n 3) 9.

<sup>15</sup> Regarding the Dodd Frank Act 2010 Congress significantly altered derivatives regulation, but left much of the difficult regulatory line to the CFTC, SEC and the Department of the Treasury. ISDA, ‘Analysis after five years of implementation’ (ISDA, 25 July 2015) <http://www2.isda.org/news/dodd-frank-five-years-on-significant-progress-and-outstanding-challenges> accessed 15<sup>th</sup> August 2015.

<sup>16</sup> Robert L. Gottsfield, Michael R. Lopez, William A. Hicks, III., ‘Derivatives: What they are, what they cause, what’s the law’ (1996) UTBJ 15, November 1.

<sup>17</sup> Bryan H. Booth, ‘Prudence or Paranoia: Considering stricter regulation of the international over-the-counter derivatives market’ (1995) Duke J. Comp. & Int’l L 499, Spring 1.

<sup>18</sup> ‘In short, the derivative contract “derives” its value from changes in another underlying referenced asset, asset bundle, financial interest rate, or even an event such as the weather. Examples of such references include interest rates, foreign currency, credit products, equity products, or even an event. Theoretically, “anything that can be quantified and objectively verified can be the subject of a derivative.” Mark A. Guinn & William L. Harvey, ‘Taking OTC Derivative Contracts as Collateral’ (2002) 57 Bus. Law. 1127, 1129.

<sup>19</sup> ‘Financial engineers often synthetically create new financial products that are known as exotic (as opposed to so-called plain vanilla) derivatives that do not exist in the marketplace to help end-users hedge against or profit from financial volatility’. William F. Sharpe, *Nuclear Financial Economics* (Risk Management: Problems and Solutions 17, William H. Beaver & George Parker eds., 1995) 34 in Peter H. Huang, ‘A Normative Analysis of new financially engineered derivatives’ (2000) 73 S. Cal.L.Rev 471, March, 477.

<sup>20</sup> Financial engineering is “the development and the creative application of financial technology to solve problems in finance and to exploit financial opportunities”. International Association of Financial Engineers, (1992) 1 J.Fin.Engineering 1.

<sup>21</sup> Saul S. Cohen, ‘The Challenge of Derivatives’ (1995) 63 Fordham L.Rev.1993 He argues that the term ‘derivatives’ operates without definitional borders.

<sup>22</sup> Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency, ‘Derivative Product Activities of Commercial Banks: Joint Study Conducted in Response to Questions Posed by Senator Riegle on Derivatives Products 2(January 27, 1993).

<sup>23</sup> Henderson, *Henderson on Derivatives* (n 4) 1.

shares, commodities, indexes<sup>24</sup> or any other financial asset, or any combination of these. Although this definition is generally true, it does not cover some OTC derivatives, for example weather derivatives.<sup>25</sup> In such transactions, the market itself establishes the value of the index. However, it can be generally accepted that there is a relationship between the value of the underlying asset and the value of the derivative<sup>26</sup>. That's why any change in the value of the underlying affects the value of the derivatives<sup>27</sup>.

As a derivatives transaction is a contract, its settlement can be either physical or in cash<sup>28</sup>. When the contract calls for one of the parties to actually buy or sell the underlying, this would be a physical settlement arrangement. Alternatively, the derivatives contract can call for one of the parties to buy or sell only the economic equivalent of ownership of the underlying; this would be a cash-settlement arrangement.

Moreover, an important feature of derivatives is the concept of notional amount<sup>29</sup>, also called principal amount. In the event of a physically settled derivative contract, the notional amount corresponds to the number of units of underlying to which the contract applies. When the derivative is cash-settled, however, the notional amount is only an amount of the underlying upon which calculations are based; it is a hypothetical value agreed between the parties.

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<sup>24</sup> Hudson, *Credit Derivatives: law, regulation and accounting issues* (n 12) 60.

<sup>25</sup> Melanie Cao and Jason Wei, 'Weather Derivatives Valuation and Market Price of Weather Risk' (2004) 4 *The Journal of Future Markets* 11, 1068.

<sup>26</sup> The group of Thirty's (G-30) Derivatives Study Group defines an OTC 'derivatives transactions' as: "a bilateral contract or payments exchange agreement whose value derives...from the value of an underlying asset or underlying reference rate or index. Derivatives transactions cover a broad range of 'underlying'-interest rates, exchange rates, commodities, equities, and other indexes". Global Derivatives Study Group, G-30, 'Derivatives: Practices and Principles' 28(1993) [http://group30.org/images/uploads/publications/G30\\_Derivatives-PracticesandPrinciples.pdf](http://group30.org/images/uploads/publications/G30_Derivatives-PracticesandPrinciples.pdf) accessed 28<sup>th</sup> August 2014 (DSG G30).

<sup>27</sup> Bryan H. Booth (n 17) 2.

<sup>28</sup> Simon James, *The Law of Derivatives* (New York, Informa Law, Routledge, 2013) 126.

<sup>29</sup> *ibid* 126.

### 2.2.2 An overview to the use of Financial Derivatives

Derivatives perform several functions<sup>30</sup>. Primarily, these instruments are used to control and reallocate risks<sup>31</sup>. Also, they are instruments to ‘obtain funding at a preferential rate’,<sup>32</sup> or to take speculative advantage of a movement in a financial market for the investing<sup>33</sup>. However, the most important function of derivatives is to hedge the risk generated in any other type of contract. Indeed, most companies and shareholders<sup>34</sup> use derivatives to control business risks by ‘hedging’<sup>35</sup>. Hedging means protecting<sup>36</sup>, it is the process by which ‘an exposed entity enters into a transaction that will generate profit in the exact circumstances that would generate a loss under the exposure’<sup>37</sup>. For instance, where a party has an exposure to UK interest rates, a derivative can be used to generate an income, which will off-set any loss suffered from the movements in the interest rate.<sup>38</sup> Therefore, the nature of hedging, as derivatives’ function of risk management, is to reduce rather than to create risk;<sup>39</sup> they reallocate, though do not eliminate<sup>40</sup>, risk from one party to another<sup>41</sup>. Nevertheless, this benign tool might not always

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<sup>30</sup> ‘[t]here are so many ways to use derivatives that I’m almost surprised when someone doesn’t use them. Producers and consumers, investors and issuers, hedgers and speculators, governments and financial institutions: almost everyone can use them.’ Fisher Balck, Foreword: *The Many Faces of Derivatives* in Jack Clark Francis, William W. Toy & J. Gregg Whittaker (eds), *Handbook of Equity Derivatives*, (Wiley Series on Financial Engineering, 2000) ix.

<sup>31</sup> Henry T.C.Hu, ‘Misunderstood Derivatives: The Causes of Informational Failure and the Promise of Regulatory Incrementalism’ (1993) 102 Yale L.J.1457, 1464-65.

<sup>32</sup> For example, Moody’s and Standard and Poor’s find derivatives to be a source of income stability for commercial banks. Peter A. Abken, ‘Over-the-Counter Financial Derivatives: Risky Business?’ (1994) Fed. Reserve Bank of Atlanta Econ. Rev., Mar.-Apr. 5.

<sup>33</sup> Hudson, *The Law of Financial Derivatives* (n 6 ) 9.

<sup>34</sup> ‘Concluding that all types of diversified shareholders derive substantial benefits from corporate hedging utilizing derivatives’. Kimberly D. Krawiec, ‘Derivatives, Corporate Hedging, and Shareholder Wealth: Modigliani-Miller Forty Years Later’ (1998) U.Ill.L.Rev.1039.

<sup>35</sup> Lee Berton, ‘Experts Shed Light on the Murky and Complex World of Derivatives’ (1994) Wall St. J. Eur., June 16; Saul Hansell, ‘Derivatives as the Fall Guy: Excuses, Excuses’ (1994) (N.Y. Times, Oct 2.

<sup>36</sup> Carolyn H. Jackson, ‘Have You Hedged Today? The Inevitable Advent of Consumer Derivatives’ (1999) 67 Fordham L.Rev.3206.

<sup>37</sup> Norman Menachem Feder, ‘Deconstructing Over-the-Counter Derivatives’ (2002) Colum. Bus.L.Rev.677, 717.

<sup>38</sup> Hudson, *Credit Derivatives: law, regulation and accounting issues* (n 12) 11.

<sup>39</sup> *ibid.*

<sup>40</sup> ‘Importantly, derivatives do not eliminate underlying risk; they only reposition it. Often, people will use the phrase risk management to explain why parties employ derivatives. This can be misleading because many understand risk management to mean reduction of risk and risk reduction is only one reason to use derivatives’. Feder, (n 37).

<sup>41</sup> Feder (n 37) 682.

operate in the way anticipated at the time of its creation<sup>42</sup>, transforming it in to a ‘risk-bearing’ instrument<sup>43</sup>.

Despite the benefits of hedging, using derivatives for this purpose is also risky<sup>44</sup> when the derivative does not cover the targeted risk as was expected, or when the counterparty defaults. Similarly, hedging with derivatives will not have the expected outcome when a party entered into a derivatives transaction to hedge anticipated risk and then not incur the risk or, when a party's hedge position might be marked to-market, whereas the underlying may not be<sup>45</sup>.

Additionally, derivatives serve as instruments for speculation; they allow end-users to speculate on the movements of the market<sup>46</sup>. This is the case when the use of a derivative contract ‘enables the investor to mimic the result of trading on an underlying financial market by entering into an off-market transaction with a financial institution’<sup>47</sup>. In purely speculative transactions the buyer or seller of the derivative has no interest in the underlying risk or has no true exposure. Rather, his interest is on the future movements of prices and the resulting profit they can obtain<sup>48</sup>. In this regard, opponents argue that derivatives speculation poses significant problems for the larger economy, and they should be treated as ‘unenforceable wagers’<sup>49</sup>. While the use of derivatives for speculation is expected from sophisticated traders, the experience shows that this

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<sup>42</sup> “[t]hey have also often fostered the illusion of a safe haven offering seemingly unlimited investment returns with virtually no risk” and given human nature, many investors are probably unable to resist the allure of strategies that promise both increased returns and reduced risk. But, the incompleteness of asset markets implies that market participants can not hedge fully or insure against or speculate upon some financial risks. Huang, (n 19) 514.

<sup>43</sup> Richard Dale, *Risk and Regulation in Global Securities Market* (John Wiley & Sons Ltd, 1996) 153.

<sup>44</sup> Franklin R. Edwards & Michael S. Canter, ‘The Collapse of Metallgesellschaft: Unhedgeable Risks, Poor Hedging Strategy, or Just Bad Luck?’ (1995) 15 J. Futures Markets 211.

<sup>45</sup> ‘Such a situation might require the hedger to deliver significant amounts of collateral if the hedge position moves against the hedger and the underlying itself is not acceptable as collateral’ Feder (n 37) 718.

<sup>46</sup> United States General Accounting Office (GAO), *Financial Derivatives: Actions Needed to Protect the Financial System*, 34-35 (1994) [GAO Report] 25.

<sup>47</sup> Hudson, *Credit Derivatives: law, regulation and accounting issues* (n 12) 11.

<sup>48</sup> Feder, (n 37) 719; Don M. Chance, ‘Losing Money with Derivatives’ (1998) *Essays in Derivatives* 289, 300.

<sup>49</sup> Lynn A. Stout (n 9) 11.



is a common activity to all market participants. Amongst the most known cases in 1990s are Orange Country, Barings Bank, and Proctor & Gamble<sup>50</sup>, all of them victims of the excessive seeking of high returns.

Arbitrage is another disseminated practice within derivatives traders. It consists of using the mismatches in market movements to generate profits. Arbitrageurs take advantage of either price mismatches or artificially restricted opportunities; they also stake positions before markets react to certain events<sup>51</sup>. Hence, it is possible for market users to take advantage of mismatches in prices or market conditions by speculating on the underlying financial products without the need to undergo the formalities of conventional market-trading<sup>52</sup>. Thus, arbitrage can take place in different situations according to parties' interests, but also depends on market imperfections, the speed, and opacity of the trading<sup>53</sup>.

To illustrate the use of derivatives for hedging risks the most common examples can be found in commodity derivatives. For instance, A is an importer, refiner and retailer of petroleum products. A enters into a bulk of derivative transactions with banks in an attempt to protect itself from the rising price of oil. These derivatives contracts require the banks to make payments to A when oil prices are high. Conversely, A is required to make payments to the banks if the price of oil fell below an agreed floor<sup>54</sup>.

Another example to explain the use of derivatives for speculative purpose is: a Public Entity obtains a loan for £30 million; the agreed interest rate is LIBOR+1. In order to protect itself from interest rate variations, the public entity enters into an interest rate swap (IRS). The initial use of the IRS would be to reduce its interest rate risk on the £30 million loan. However, the public entity is

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<sup>50</sup> Desmond Eppel, 'Risky Business: Responding to OTC Derivatives Crises' (2002) 40 Colum. J. Transnat'l L. 677 687.

<sup>51</sup> Feder, (n 37)720.

<sup>52</sup> Hudson, *Credit Derivatives: law, regulation and accounting issues*. (n 12) 12.

<sup>53</sup> Feder, (n 40)720.

<sup>54</sup> Example based on *Standard Chartered Bank v Ceylon Petroleum Corp* [2011] Queen's Bench Division 11 July 2011 EWHC 1785 (Comm).

also interested in obtaining additional profits. Thereby, the public entity and its counterparty agree that the IRS would have only a nominal link with a liability in their books. This means that the reference to the liability is only nominal. As a result, the IRS is creating a return on the interest differential, which is an example of speculation<sup>55</sup>.

It is also possible to structure a derivative contract to serve “unusual” client’s interests. For instance, to avoid tax laws<sup>56</sup>. In *Explainaway Ltd v HMRC*<sup>57</sup>, *Explainaways* and its parent company (*Paul Rackham Ltd*) entered into two derivatives, FTSE 100 LIFFE futures contracts (one long and one short), which were in turn traded with two acquired subsidiaries, with the sole purpose of eliminating tax on the gain on its short contract.

One important concept in derivatives transactions is risk. Risk refers to the randomness that is quantifiable in terms of probability distributions<sup>58</sup> - it suggests volatility. Risk is usually understood as an element with potentially negative outcomes. However, risk is also a promise of the possibility of profits and not only losses<sup>59</sup>; it is correlated with a rate of return, so if the investment risk increases, so does its profitability. Hence, risk acts as a ‘driver’ of market transactions, and in every transaction there is a continuous exchange of risks between counterparties. Derivatives have proved to be among the most effective tools for isolating and transferring those financial risks.

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<sup>55</sup> Regarding the use of Swaps by Public entities with speculative purpose. Trib Bologna, *Commune di Cattolica v BNL* 10 December 2009; See LG Wurzburg, about the Bavaria rules, based on a prohibition of speculation, to which the bank had to draw the Commune’s attention, as the transaction implied a leverage of 3, and contained other speculative features; Eddy Wymeersch, ‘Regulation and Case Law Relating to Financial Derivatives’ (January 20, 2012). University of Ghent Financial Law Institute Working Paper No. 2012-03. <http://ssrn.com/abstract=1988925> or <http://dx.doi.org/10.2139/ssrn.1988925> accessed 18<sup>th</sup> January 2016.

<sup>56</sup> *Hoosier Energy Rural Electricity Cooperative v. John Hancock Life Insurance Company* is a complex dispute involving CDS contract, in which the transaction was designed to allow John Hancock to claim to be the “owner” of the plant for tax purposes. *Hoosier Energy Rural Elec. Coop. v. John Hancock Life Ins. Co.* No. 1:08-cv-1560-DFH-DML, 2008 U.S. Dist. LEXIS 10.

<sup>57</sup> *Explainaway Ltd v HMRC* [2012] UKUT 362.

<sup>58</sup> Huang (n 19).

<sup>59</sup> Eppel (n 50).

However, derivatives themselves can represent various types of risks<sup>60</sup>, including credit risk, market risk, liquidity risk, legal risk and operational risk. Credit risk is the risk that a derivatives transaction counterparty might default<sup>61</sup>. Under the traditional transaction structure, before the GFC, one entity was exposed to credit risk by its counterparty. After the introduction of Central Counterparties (CCPs) to the OTC derivatives market, such a bilateral structure changed. Thus, as the CCP poses itself in the middle of the transaction and becomes the counterparty of the two initial counterparties, there is a change in the allocation of credit risk that is now transferred to the CCP. Then, the risk of each individual transaction is mutualised across all CCP's members.

Market risk reflects the risk of adverse prices, interest rates, index levels, volatility and fluctuations in the underlying asset<sup>62</sup>. The common methods<sup>63</sup> to manage market risk include marking to market, using a portfolio approach to manage market risk and hedging<sup>64</sup>.

Liquidity risk appears in two forms - market liquidity risk and funding liquidity risk<sup>65</sup>. Market liquidity risk refers to the risk that an entity may be unable to offset a derivatives transaction in a timely manner or at the market price<sup>66</sup>. Funding liquidity risk is the risk that a party cannot meet its payment

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<sup>60</sup> Brandor Becker and Francois-Ihor Mazur, 'Risk Management of Financial Derivatives Products: 'Who's Responsible for What?' (1995) 21 J.Corp.L 177, Fall 183.

<sup>61</sup> Gregory R. Duffee, 'On Measuring Credit Risks of Derivative Instruments' (1996) Journal of Banking and Finance 20 805 [http://www.econ2.jhu.edu/People/Duffee/jbf\\_1996.pdf](http://www.econ2.jhu.edu/People/Duffee/jbf_1996.pdf) accessed 16<sup>th</sup> September 2015.

<sup>62</sup> Derivatives Policy Group, 'A framework for Voluntary Oversight of the OTC Derivatives Activities of Securities Firm affiliates to promote confidence and Stability in Financial Markets' (1995). This report sets forth a framework for the voluntary oversight of the OTC derivatives activities of the unregulated affiliates of six of the largest U.S. investment banks. The report also addresses the types of internal controls firms should implement to monitor and measure the risks of OTC derivatives. <http://ifei.ch/137790.htm> accessed 16<sup>th</sup> September 2015.

<sup>63</sup> DSG G30 (n 26).

<sup>64</sup> Becker and Mazur (n 60)190.

<sup>65</sup> Federal Reserve System, 'Liquidity Risk, in Trading and Capital-Markets Activities Manual', (September, 2002) [http://www.federalreserve.gov/boarddocs/supmanual/trading/trad\\_p2.pdf](http://www.federalreserve.gov/boarddocs/supmanual/trading/trad_p2.pdf) accessed 16<sup>th</sup> September 2015.

<sup>66</sup> Basel Committee on Banking Supervision, 'Risk Management Guidelines for Derivatives' (1994) <http://www.bis.org/publ/bcbasc211.pdf> accessed 16<sup>th</sup> September 2015.

obligations on the settlement date<sup>67</sup>. A loss of liquidity arises when the creditworthiness of any of the counterparties declines or is a period of market distress. One example of liquidity market risk crystallised was the 1987 market crash<sup>68</sup>, where there was an overreliance on the insurance market and its ability to absorb the losses of the futures and bond markets.

Legal risk emerges when there are issues affecting or impeding the enforcement of the contract<sup>69</sup> and, as a result, a counterparty might not be able to collect on a winning position. The source of such impediments might be inadequate documentation, the uncertain legality<sup>70</sup> of the contract itself<sup>71</sup> or the effect of insolvency laws on netting provisions<sup>72</sup>. To avoid the crystallisation of this risk, counterparties should develop policies and procedures to adequately determine the legality of the contract's content from the outset.

Finally, operational risk is the risk of loss resulting from inadequate or failed internal process, people and systems or from external events<sup>73</sup>. The operational management should include three elements: 'the people involved in the derivatives transactions, the framework within which the activities are undertaken, and the systems that are used'<sup>74</sup>. Thus, the types of risk that can be

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<sup>67</sup> BIS, 'Central Bank Survey of Derivatives Market Activity' (1995) [http://www.bis.org/pub/r\\_fx96.htm](http://www.bis.org/pub/r_fx96.htm) accessed 16<sup>th</sup> September 2015.

<sup>68</sup> Gerard Gennotte & Hayne Leland, 'Market Liquidity, Hedging, and Crashes', 80 AM. ECON. REV. 999 (1990).

<sup>69</sup> Feder, *ibid* (n 37). The author explains that a considerable part of the legal risk faced by derivatives transactions is caused in the novelty of its design, and how innovative financial products tend to get tested by legal systems only some time after the introduction to the market.

<sup>70</sup> The most famous example of an agreement being declared beyond the legal authority of one of the parties entering into it (i.e., the doctrine of ultra vires) is the case of *Hazell v. Hammersmith and Fullham Borough Council*. In this case the House of Lords held that a series of swap transactions entered into by a local government authority were beyond the capacity of its council, and therefore void. 2 W.L.R. 372; 1 All E.R. 545 (H.L. 1991).

<sup>71</sup> Anne Beroza & Robert M. McLaughlin, 'What General Counsels Need to Know About Derivatives: Understanding Risks Can Protect Your Company' (1994) CORP.LEGAL TIMES, Oct 14.

<sup>72</sup> IOSCO, 'Operational and Financial Risk Management Control Mechanism for Over-the-Counter Derivatives Activities of Regulated Securities Firms' (1994) Technical Committee of International Organisation of Securities Commission Working Paper N. 3.

<sup>73</sup> BIS, 'Principles for the Sound Management of Operational Risk' (2011) Basel Committee on Banking Supervision, 3.

<sup>74</sup> Derivatives Policy Group (n 62) 50.

characterized as operational are broad<sup>75</sup>; basically, any risk that does not fit in any other category could be classified as operational.

Financial derivatives play an important role in capital markets and in general in the broader economy<sup>76</sup>. Derivatives transactions are an important component of financial markets, providing significant benefits when used prudently<sup>77</sup>. Companies use derivatives for protection against a myriad of risks that are inherent to their business<sup>78</sup>. The attractiveness of derivatives, especially the OTC derivatives market, lies principally on being a flexible tool for institutional and corporate investors to hedge a large range of risks<sup>79</sup>. Derivatives can also achieve legitimate business objectives<sup>80</sup>, often at a much lower cost than traditional investments<sup>81</sup>.

Indeed, derivatives improve economic efficiency by breaking apart risk and parcelling it out to the parties who are the cheapest and most willing risk-bearers<sup>82</sup>. Awrey argues that these benefits are identifiable in the role that OTC derivatives play in completing asset markets<sup>83</sup>, enhancing price discovery<sup>84</sup>, and

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<sup>75</sup> Codelco Head Claims, 'Systematic Deception' (1994) METALS WK., Sept. 15, 1; John McManus, 'Derivatives Dealing a Risky Business: Barings Is Not the First Major Company to be Brought to Its Knees by Trading in Such Futures' (1995) Irish Times Feb 27 14.

<sup>76</sup> *ibid.*

<sup>77</sup> Christian A. Johnson, 'At the Intersection of the Bank Finance and Derivatives: Who has the right way?' (1998) 66 Tenn. L. Rev. Fall 23.

<sup>78</sup> Anatoli Kuprianov, 'The Role of Interest Rate Swaps in Corporate Finance' (1994) Fed. Reserve Bank Rich. Econ. Q., Summer 53-58.

<sup>79</sup> Christopher Culp, 'The social functions of Financial Derivatives' in Robert Kolb and James Overdahl (eds), *Financial Derivatives Pricing and Risk Management* (Kolb Series in Finance, 2011) 59 [http://www.rmcsinc.com/articles/Soc\\_Fctns.pdf](http://www.rmcsinc.com/articles/Soc_Fctns.pdf) accessed 18<sup>th</sup> September 2015.

<sup>80</sup> Balvinder Sangha, 'Financial Derivatives: Applications and Policy Issues' (1995) Business Economics Jan 95 Vol 30 Issue 1 46.

<sup>81</sup> Gottsfeld, Lopez, and Hicks (n 16).

<sup>82</sup> David Mullins, 'Remarks on the Global Derivatives Study Sponsored by the Group of Thirty' (1993) ISDA Summer Conference 1 [https://fraser.stlouisfed.org/scribd/?item\\_id=35397&filepath=/docs/historical/federal%20reserve%20history/bog\\_members\\_statements/mullins\\_19930728.pdf#scribd-open](https://fraser.stlouisfed.org/scribd/?item_id=35397&filepath=/docs/historical/federal%20reserve%20history/bog_members_statements/mullins_19930728.pdf#scribd-open) accessed 18<sup>th</sup> September 2015.

<sup>83</sup> 'An asset market is complete where a party trading within such a market is capable of realizing every possible pattern of risk and return across time and over all possible future contingencies' Dan Awrey, 'The Dynamics of OTC Derivatives Regulation: Bridging the Public-Private Divide' (2010) European Business Organization Law Review 11.

<sup>84</sup> 'OTC derivatives market promote greater informational, pricing and allocative efficiency' *ibid.*

absorbing systemic risk<sup>85</sup>. However, the role of OTC derivatives as mechanisms that help to absorb systemic risk is debatable<sup>86</sup>, especially after the GFC. The high level of interconnectedness and excessive concentration of risk amongst derivatives dealers is, even under the post-GFC regulatory framework, the key source of potential systemic risk.

Nonetheless, derivative transactions create substantial risks<sup>87</sup> - among them, as was explained before, there are market<sup>88</sup>, credit<sup>89</sup>, operational<sup>90</sup>, liquidity<sup>91</sup> and legal<sup>92</sup> risks. They are similar to the risks banks and securities firms face in their traditional business.<sup>93</sup> However, what differentiates OTC Derivatives is the complexity and rapid risk transformation<sup>94</sup>. Complexity refers to the structuring and pricing of OTC derivatives transactions. The peculiarity of tailored transactions may not be fully understood by end users and regulators. Similarly, the pricing of derivatives that is supposed to be dependent on the value of the underlying asset is not as easy to comprehend.

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<sup>85</sup> 'To the extent that OTC derivatives successfully shift risks to the parties most willing and capable of absorbing them, there exists a prima facie argument that market utilizing OTC derivatives will prove more stable and resilient than those which do not'. Awrey *ibid*.

<sup>86</sup> The discussion of how OTC derivatives increase or decrease systemic risk is not new. *See* Roger Lowenstein, 'When Genius Failed: The Rise and Fall of Long-Term Capital Management' (2000); Thomas F. Siems, '10 Myths About Financial Derivatives' (1997) Cato Inst., Cato Policy Analysis No. 283 8-9.

<sup>87</sup> Cohen (n 21).

<sup>88</sup> Adam R. Waldman, 'Comment OTC Derivatives & Systemic Risk: Innovative Finance or the Dance Into the Abyss' (1994) 43 Am. U. L. Rev. 1023, 1047 <http://www.wcl.american.edu/journal/lawrev/43/waldman.pdf> accessed 31<sup>st</sup> May 2013.

<sup>89</sup> Traditionally it was argued that: 'Credit risk is particularly troubling for lender whose borrower is participating in the OTC derivatives market as opposed to a standardised derivative transaction (...) Because participants in the OTC market perform their own credit checks (...) no clearinghouse arrangement exists to minimize credit risk in the OTC'. However, under the post-GFC crisis CCPs will serve as clearing houses for large part of OTC derivatives transactions. Jeremy A. Gluck, Measuring and Controlling the Credit Risk of Derivatives, in Robert A. Klein & Jess Lederman (eds), *Derivative Risk and Responsibility* (S 121, 156-57, Chicago u.a. Irwin, 1996); *See* Waldman, (n 88).

<sup>90</sup> John C. Dugan, 'Derivatives: Netting, Insolvency, and End Users' (1995) 112 Banking L.J. 638, 644-46.

<sup>91</sup> "Liquidity is commonly defined as the ease with which an asset can be bought or sold for money. (...) Liquidity in the OTC derivatives market is maintained by dealers, who are prepared to create and sell the products, in addition to folding unmatched derivatives positions in their inventory. If market participants perceive that another participant is itself illiquid, it is unlikely that they would be willing to transact derivatives contracts with that participant on mutually favourable terms for fear of the counterparty risk presented". Waldman (n 88).

<sup>92</sup> Referring to the problems derivatives face depending on the jurisdiction. 2 W.L.R. 372; 1 All E.R. 545 (H.L. 1991) (n 70).

<sup>93</sup> Dale (n 43) 156.

<sup>94</sup> *ibid*.

The speed of derivatives trading<sup>95</sup> is reflected in the rapid risk transformation<sup>96</sup>. Most derivatives are traded through a standard contract, which allows counterparties to enter into as many transactions as they need. These transactions are negotiated through calls, e-mails and electronic platforms, and counterparties rapidly change. Therefore, the risk of every transaction in every stage of trade is not easily identifiable or traceable, and sometimes a trader's decision to sell or to buy derivatives takes a fraction of a second in order to take advantage of assets' price variations identified by computers.<sup>97</sup> This situation, however challenging, should not prevent regulators from establishing and enforcing the rules of the market<sup>98</sup>.

Additionally, the riskiness of the derivatives market is manifested by the high concentration of business among a few major players. Part of the explanation may lie on the complex information and risk-management systems that underpin the market. The failure of a large derivatives dealer could not only affect its counterparties but the liquidity of the whole market. Furthermore, the concentration of the risk is magnified by the interconnectedness of derivatives traders<sup>99</sup> with the rest of the financial system that facilitates cross-market contagion of systemic defaults. Hence, attending to the aforementioned

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<sup>95</sup> *ibid* 157.

<sup>96</sup> Eppel (n 50).

<sup>97</sup> 'High-frequency trading firms, including some hedge funds, profit from dipping in and out of markets within fractions of a second to trade stocks, bonds and futures to take advantage of tiny price differences detected by computers'. Sara Lynch, 'CME Group sparked shutdown of CFTC's academic research program' (2013) <http://www.reuters.com/article/2013/04/24/us-cftc-cme-research-idUSBRE93N0YN20130424> accessed 31<sup>st</sup> may 2013.

<sup>98</sup> 'To make it feasible for regulators to establish and enforce market rules, there have been several initiatives. Although much of their initial focus was on requiring OTC derivative trades to be cleared through a central counterparty (CCP), policymakers and regulators are now examining other steps that are equally critical to helping mitigate risk, enhance transparency and ensure that regulators have access to crucial market data. One of the most effective proposals under consideration is to require the reporting of all OTC derivatives trades to a central repository where all underlying position data (and possibly transaction data) can be held, with unfettered access provided to all regulators globally'. Stewart Macbeth, 'Lighting the lamp, or how regulators can help themselves monitor global OTC Derivatives Markets' (2010) <http://archive-org.com/page/2944645/2013-10-01/http://www.world-exchanges.org/insight/views/lighting-lamp-or-how-regulators-can-help-themselves-monitor-global-otc-derivatives> accessed 21<sup>st</sup> June 2013.

<sup>99</sup> Frederick Dolmer, 'A critical evaluation of the European credit default swap reform: Its challenges and adverse effects as a result of insufficient assumptions' (2013) 37 J.B.R 14 1.

repercussions of its failure, large derivatives dealers have been characterised as ‘too-big to fail’<sup>100</sup> institutions.

Under the post-crisis regulatory reform the concentration of business, and risks, among a few major players is changed by the concentration of a large portion of transactions in the new intermediaries of the market, the Central Counterparties (CCPs).

Finally, the importance of the OTC derivatives market is not only verified by the size of the market<sup>101</sup>, but also the relevance of those who participate on the market. The OTC derivatives market gathers financial and non-financial counterparties; they are classified in two types of participants: end-users and broker-dealers. End users may be banks, securities firms, insurance companies, governments, investment funds or commercial firms. There are dealers who develop customised derivative products for their customers and have different levels of involvement in the derivatives market<sup>102</sup>. Eventually, some financial institutions act as dealers by quoting prices to, buying derivatives from and selling to end users.

There is no doubt about the riskiness attributed to the derivatives market, and especially to the OTC derivatives market. Not only the most recent financial crash, which is explained in the next section, but several other financial losses

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<sup>100</sup> The ‘Too-big-to-fail’ doctrine was initially applied to banks during the Global Financial Crisis. According to this doctrine, national authorities are reluctantly obliged to bail out large banks whose collapse would dangerously destabilise the financial system’. Sara Lynch (n 97) 161.

<sup>101</sup> The gross market value of outstanding derivatives contracts - which provide a more meaningful measure of amounts at risk than notional amounts - rose sharply in the second half of 2014. Market values increased from \$17 trillion to \$21 trillion between end-June 2014 and end-December 2014, to their highest level since 2012. BIS, ‘Statistical release: OTC derivatives statistics at end-December 2014. (2015) Monetary and Economic Department April [http://www.bis.org/publ/otc\\_hy1504.htm](http://www.bis.org/publ/otc_hy1504.htm) accessed 27<sup>th</sup> August 2015.

<sup>102</sup> Different degrees of involvement determine the activities of the market participants: providing quotes to dealers, developing new products, providing quotes for customers, using complex structures, acting as principal, taking a position risk, and using mature products. Dale (n 43) 155.



have been caused or related to derivatives. This highlights the mercurial nature of these instruments<sup>103</sup>. One of the most notorious events was the collapse of Barings Plc., which was due to massive losses from unauthorised and concealed futures and options trading of Nicholas Leeson, an employee of Barings Futures (Singapore) Pte. Limited.<sup>104</sup> The report on Britain's Board of Banking Supervision concluded that the irregular activities were undetected because of a failure in management oversight and controls<sup>105</sup>.

### 2.2.3 Morphology of Financial Derivatives Transactions

Financial derivatives constitute a market that allows and incentivises creativity<sup>106</sup> and financial innovation<sup>107</sup>. Derivatives contracts are the result of combining certain features that give the counterparties the possibility to look for capital raising and management of credit risk. Therefore, most of the characteristics of these transactions will respond to the specific interests of the clients and investors. This explains the fact that, in the derivatives market, any transaction can be perfectly reshaped in order to satisfy the client's needs<sup>108</sup>.

Despite the differences among the different types of derivatives, there are some commonly recognised features shared by most financial derivatives contracts. Henderson<sup>109</sup>, one of the leading authors in the derivatives market, has set out some of the attributes of financial derivatives, warning that 'not all derivatives share all characteristics, and the characteristics of certain types of

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<sup>103</sup> Becker and Mazur (n 60).

<sup>104</sup> *Report of the Board of Banking Supervision Inquiry into the Collapse of Barings*, Return to and Order of the Honourable the House of Commons 250 (London: 1995) para 13.60.

<sup>105</sup> *ibid.*

<sup>106</sup> Regarding the flexibility of tailoring financial derivatives M. Scholes, 'Derivatives and Financial Innovation: the Past, Present and the Future' (1998) Vol XLIII, 4 *Tijdschrift voor Economie en Management*, 555 [http://www.econ.kuleuven.be/rebel/jaargangen/1991-2000/1998/TEM1998-4/TEM1998-4\\_553-562p.pdf](http://www.econ.kuleuven.be/rebel/jaargangen/1991-2000/1998/TEM1998-4/TEM1998-4_553-562p.pdf) accessed 25<sup>th</sup> October 2012.

<sup>107</sup> Hudson, *The Law on Financial Derivatives* (n 6) 7.

<sup>108</sup> *ibid* 9.

<sup>109</sup> Henderson (n 4) 60.

derivatives sometimes require a little analytical thinking to spot<sup>110</sup>. Therefore, the first step is to identify the form of the transaction; usually they are: swaps, options and futures or forwards.

The second stage is to identify that every derivative exists because of an underlying asset. However, this must not be confused with terms of the autonomy<sup>111</sup> of the derivative and the underlying asset *per se*. The underlying asset (rate, price, currency, index, security, commodity or other economic metric) is the base of the financial derivative; although closely related, they are independent. An exception to this rule is found in the illustrative case of CDS Credit Default Swaps defined as contracts where the rights and obligations of the parties derive from the credit risk of a reference entity or asset. Under a CDS a ‘protection buyer contracts with a counterparty and in return for a premium buys protection against particular credit events which should be carefully defined in the contract’<sup>112</sup>. Here, the credit risk is derived from any other contract or legal agreement between counterparties that potentially would breach their commitments. Seeking to cover themselves from the consequences of the breach, they decide to enter into a CDS to ‘buy’ protection similar but not equal to the one provided by insurance<sup>113</sup>.

Derivatives take shape in different types of transactions<sup>114</sup>. Within the most common types of derivatives are options, futures, swaps and credit derivatives.

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<sup>110</sup> T. Lynch (n 3) similarly stated, ‘To fully understand what derivatives transactions are, it is necessary to understand what characteristics all derivatives transactions share and what characteristics they might, but need not, possess’.

<sup>111</sup> See *S.C.F. Finance Co Ltd. V. Marsi* [1986] 2 Lloyd’s Rep. 366.

<sup>112</sup> David Rule, ‘The Credit Derivatives market: its development and possible implications for financial stability’ (Financial Stability Review, Bank of England, June 2001) 118.

<sup>113</sup> CDS are similar but not the same as insurance contracts. The IMF has stated: ‘insurance is not a form of financial derivative. Insurance contracts provide individual institutional units exposed to certain risks with financial protection against the consequences of the occurrence of specified events, many of which cannot be expressed in terms of market prices. Insurance is a form of financial intermediation in which funds are collected from policyholders and invested in financial or other assets which are held as technical reserves to meet future claims arising from the occurrence of the events specified in the insurance policies: that is, insurance manages event risk primarily by pooling, not the trading of risk.’ IMF, ‘Financial Derivatives’ (Eleventh Meeting of the IMF Committee on Balance of Payments Statistics, Washington D.C, October 21-23 1998) 3.

<sup>114</sup> Ligia Catherine Arias Barrera, ‘Introductory Aspects On Financial Derivatives Market: ISDA Master Agreement Dealing With Legal Risk?’ (2012) Vol 11 N.1 *Revist@ emercatoria*

### 2.2.3.1 Options

Options, to sell or to buy, are transactions according to which one person buys the right to sell or to buy a specific asset, establishing a future date (*Strike date*) to deliver it, but fixing the price (*strike price*) at the moment of the agreement<sup>115 116</sup>. That agreement also includes the premium that is the fee paid to the option seller. If the option is to buy, it is a call option; if the option is to sell, it is a put option<sup>117</sup>. The seller is the option writer or option seller and the buyer is called the option holder or option buyer<sup>118</sup>. In this type of transaction, what is traded is the right to buy or sell<sup>119</sup> the specific asset, not the asset itself. The variation of the assets' real price is inherent in options and justify why they are called contracts for differences. The rationale is that sellers or buyers are taking the risk of the price fluctuation. Hence, if the price of the asset is higher by the strike date, the seller is losing the difference, while the buyer is gaining it. Contrariwise, if by the strike date the price of the asset is lower than the strike price, the seller is profiting from the transaction while the buyer is losing the difference<sup>120</sup>. Additionally, the right to sell or buy can be withdrawn without affecting the underlying asset's transaction.

### 2.2.3.2 Futures or Forwards

According to this type of transaction<sup>121</sup>, one party agrees with another to sell specific assets at a future date at a fixed price<sup>122</sup>. Here, one party is assuming the obligation, as opposed to just the right to exchange the asset on the future

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<http://www.emercatoria.edu.co/PAGINAS/VOLUMEN11/HTML1/140.html> accessed 19<sup>th</sup> June 2013.

<sup>115</sup> Roberta Romano, 'A Thumbnail Sketch of Derivative Securities and Their Regulation' (1996) 55 Md. L. Rev. 1, 49.

<sup>116</sup> John Hull, *Options, futures & other derivatives* (Prentice Hall International, 2003) 194.

<sup>117</sup> Feder (n 37) 692.

<sup>118</sup> *ibid.*

<sup>119</sup> Joana Benjamin, *Financial Law* (OUP, 2007) 66.

<sup>120</sup> Arias Barrera (n 114) 464.

<sup>121</sup> Future and Forward are similar in nature; the name of 'forward' has been used when the derivative is traded on exchange systems.

<sup>122</sup> Hull (n 116) 104.

date<sup>123</sup>. Notwithstanding the real price the assets might have by the fixed date, the payable price is the one agreed by the time both parties entered into the transaction<sup>124</sup>. This is an alternative way of financing production and industrial activities. For instance, a farmer interested in funding the next production of his farm, receiving financing and guaranteeing the sale by the end of the specified period. The foreseeable risk is the potential default in the underlying transaction.

### 2.2.3.3 Swaps

Swaps are agreements between two parties to pay each other a series of cash flows, based on fixed or floating interest rates in the same or different currencies.<sup>125</sup> The most common swaps include interest rates, currencies, market risks and credit risks<sup>126</sup>. Swaps have been used in managing financial crises<sup>127</sup>.

An interest rate swap 'is an agreement between two parties by which each one agrees to pay the other on a specified date or dates with an amount calculated by reference to the interest which would have accrued over a given period on a notional principal sum. The rate of interest payable by each party (on the same notional sum) is different'<sup>128</sup> - one being a fixed interest rate and the other a floating interest rate. Swaps are made upon the basis to set off the object of the transaction. That is why this is better understood with an example<sup>129</sup>.

Company A and Company B have borrowed 100 of third parties. The credit taken by Company A was agreed with a variable interest rate (e.g. LIBOR) plus 1%. The credit of B Company in the form of a bond has a fixed rate of 10%.

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<sup>123</sup> *ibid.*

<sup>124</sup> *ibid.*

<sup>125</sup> Henderson (n 4) 33.

<sup>126</sup> Benjamin (n 119) 67.

<sup>127</sup> *ibid.*

<sup>128</sup> *Westdeutsche Landesbank Girozentrale v Islington BC* [1996] 2 All ER 961 (HL), *per* Lord Browne-Wilkinson, 982.

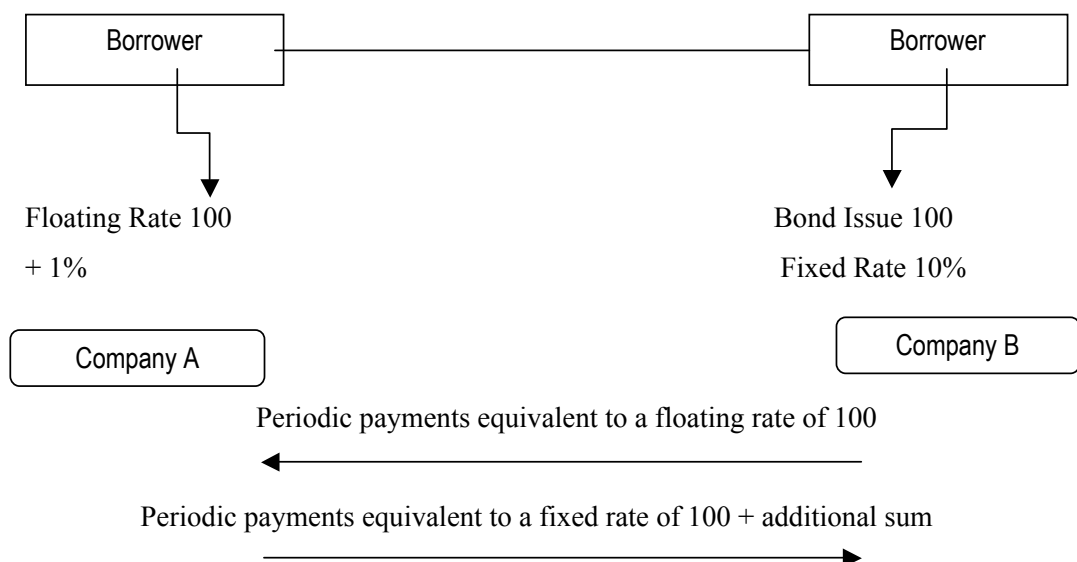
<sup>129</sup> Arias Barrera (n 114) 465.

In fact, under this assumption the interest rate swap payments are as follows: Company B pays Company A periodic amounts equal to the variable interest rate of 100. Company A pays Company B periodic amounts to a fixed interest rate of 100, plus an additional amount representing the profit of Company B. Payments will be agreed for a specific date in a way that can be compensated.

The economic rationale of a transaction in this regard is that Company A is a bank that can lend money at a fixed rate, while Company B is less creditworthy and therefore goes to the bond issue. Reciprocal payments are not self-interest, but sums equal to interest calculated on a single principal sum, which for example could be 100.

The creditors of Company A and Company B will not be affected, as they have to comply with the payment of their obligations thereunder, regardless of whether the payments within the structure of the swap are made or not. So, if Company B becomes insolvent, Company A must also pay the rate of 10% to the bondholders and is not receiving payments from Company B

#### *Basic Structure of Interest Rate Swaps<sup>130</sup>*



<sup>130</sup> Graphic elaborated by the author.

The example helps to illustrate how some type of derivatives serve functions similar to insurance, especially the possibility to enter into a mirror transaction to hedge the risks of the first contract. However, there are some practices that allow special reductions of risk, and are exclusive of financial derivatives. For instance, compression in Interest Rate Swaps is a technique that ‘enables swap dealers with substantial two-way (pay and receive) swap activity to terminate substantial amounts of swap contracts before they expire by their terms. The benefits of compression include reductions in counterparty credit exposure, operational risk and cost, as well as lower legal and administrative expenses in the event of a default of any participating dealer. Importantly, since contracts are actually eliminated, under some regimes capital costs can be reduced. Together with expanded clearing of IRS, compression produces tremendous reduction of risk in the derivatives marketplace’<sup>131</sup>.

Although futures, options and swaps are the basic transactions called ‘vanilla products’<sup>132</sup>, there is an increasing variety of novel<sup>133</sup> and exotic products<sup>134</sup> resulting from the combination of the basic forms. One particularly relevant to the Global Financial Crisis is the Credit Default Swap or CDS.<sup>135</sup> The CDS are credit derivatives where a seller of protection, called the guarantor, agrees to pay to the buyer of protection (the creditor) an amount if, during an agreed period, a prescribed credit event occurs, signifying a problem in relation to a reference obligation (the guaranteed debt)<sup>136</sup>. The credit event usually refers to default, bankruptcy, insolvency restructuring or rating downgrade, depending on what the contractual parties agree.

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<sup>131</sup> International Swaps and Derivatives Association, ‘Interest Rate Swaps Compression: A Progress Report’ (2012, ISDA Study).

<sup>132</sup> The most basic or standard version of a financial instrument, usually options, bonds, futures and swaps. Jongho Kim, ‘From Vanilla Swaps to Exotic Credit Derivatives: How to approach the interpretation of Credit events’ (2008) FJCFL.

<sup>133</sup> Lenzner and Heuslein, ‘The Age Of Digital Capitalism’ (1993) Forbes, March 29, 62.

<sup>134</sup> ‘The types of derivatives that can exist are limited only by the imagination of the interested parties. Today one can invest in weather derivatives, freight derivatives, emissions derivatives, inflation derivatives (...)’. Randy Myers, (n 10); See Carter, Ledyard & Milburn LLP, Client Advisory, Forward Freight Agreements, available at <http://www.clm.com/publication.cfm/ID/85>. in T. Lynch (n 3).

<sup>135</sup> Rasiah Gengatharen, *Derivatives law and regulation* (Kluwer Law International, 2001) 59.

<sup>136</sup> *ibid.*

#### 2.2.3.4 Credit Derivatives

The category of Credit Derivatives includes transactions that are intended to transfer credit exposure vis-à-vis specific obligors<sup>137</sup>. These products involve two parties - one is the protection buyer and the other is the protection seller<sup>138</sup>. When the transaction is linked to the occurrence of a credit event, it is a default product<sup>139</sup>. Credit Derivatives may be structured as a swap - the most common form - an option or a hybrid security<sup>140</sup>.

The hybrid security is called 'credit-linked note', which embeds a credit default swap into a note<sup>141</sup>. Henderson defines the credit-linked note as an instrument in which 'the protection buyer (the issuer) issues notes to the sellers of protection (investors) against their payment of the note purchase price. Thereafter, the investors receive an agreed rate of return, the cost of the credit protection effectively being the margin (adjusted upwards for the credit risk of the issuer) over the floating rate of interest on the note. On the occurrence of a credit event and satisfaction of any other specified conditions, the note is redeemed at an amount equal to the then value of the reference obligation determined in accordance with the specified valuation procedures'<sup>142</sup>. Within this transaction, the protection buyer is completely covered of credit risk, because the seller has paid the purchase price of the note, performing his obligation.

Moreover, a credit derivative can take the form of an option. In this case, the option is exercised on the occurrence of a credit event. The difference between the option and a CDS is that the 'premium is paid in full in advance and is non-refundable while in the swap the fixed amount is paid over time until the

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<sup>137</sup> Feder (n 3) 706.

<sup>138</sup> John Kiff & Ron Morrow, 'Credit Derivatives', (2000) Bank of Can. R. 3, 7.

<sup>139</sup> Henderson (n 4) 106.

<sup>140</sup> The term Hybrid Securities 'was originally conceived as securities with embedded derivatives which were hedged by the issuer through a swap with the dealer. The issuer's sole interest is generally in the reduced all-in borrowing cost it achieves through the combined cash flows of the derivative and the debt instrument' *ibid* 189.

<sup>141</sup> *ibid* 200.

<sup>142</sup> *ibid*.

occurrence of the credit event and satisfaction of any other conditions to settlement<sup>143</sup>.

Finally, the most commonly used are the credit derivatives called Credit Default Swaps (CDS). According to these transactions a seller of protection, called the guarantor, agrees to pay to the protection buyer (the creditor) an amount during an agreed period if a prescribed *credit event*<sup>144</sup> occurs, signifying a problem in relation to a reference obligation (the guaranteed debt) of a reference entity, the principal debtor. Basically, it works as a guarantee and the instrument will be enforced only when the underlying obligation is in default - that is called *credit event*<sup>145</sup>. The protection payment results from the difference between the reference price (agreed at the beginning) and the final price of the reference obligation; it is a percentage applied to the notional amount (also called calculation amount).

In the words of Henderson, 'a reference obligation is an obligation which is usually but not necessarily issued or guaranteed by the reference entity, which may be a loan, debt security or other type of payment obligation'<sup>146</sup>. The uses of such reference obligations vary according to the parties' will. They are used either to determine the cash settlement amount, to determine the existence of a credit event, or 'in physical settlement, may be delivered on the occurrence of a credit event, on exercise or at the termination date'<sup>147</sup>. Particularly important is to point out the difference between a cash-settled and physically-settled CDS. In the first case, the delivery of a credit event notice is enough to require the protection payment from the buyer, while the second requires a notice of physical settlement by the buyer.

Finally, the definition of the credit event is left to the parties. It can be, but is not necessarily, linked to the insolvency of the counterparty<sup>148</sup>.

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<sup>143</sup> *ibid* 111.

<sup>144</sup> Usually a credit event includes: bankruptcy, insolvency restructuring or rating downgrade.

<sup>145</sup> Arias Barrera (n 114) 467.

<sup>146</sup> Henderson (n 4) 107.

<sup>147</sup> *ibid*.

<sup>148</sup> Felix Salmon, 'Sovereign Market Awaits Court Verdicts' (2002) *Euromoney* May 32 (in light of Argentine crisis of 2001, sovereign credit derivatives market requires clear definition of what



Alternatively, it can include a credit rating downgrade or the default in the payment of a specific amount.

#### **2.2.4 Understanding the process of financial derivatives trading**

The study and the regulatory treatment of derivatives have been historically divided into two markets in which they are traded: Exchange and Over-the-Counter (OTC). Traditionally, exchange-traded derivatives are standardised products traded on centralised trading platforms. Hence, users are obliged to accept the rules and requirements set by the exchange. OTC derivatives were often non-standardised and bespoke instruments; they were traded in a market that bestowed all participants with limitless flexibility and innovation. However, after the post-GFC regulatory reforms, a large part of the OTC Derivatives transactions are expected to be standardised and subject to a heavier regulatory burden.

On the one hand, stock exchanges control<sup>149</sup> all the transactions by imposing margin requirements, standard forms, transparency rules, settlement amounts, maturity dates and strike prices<sup>150</sup>, and act as clearinghouses<sup>151</sup>. The benefits of this type of trading are mainly low credit risk, low transaction costs, a greater price transparency and a higher degree of liquidity<sup>152</sup>. Liquidity is increased, since the contract is more easily sellable, because the contracts are standardised. Regarding price transparency, exchanges must usually publish the

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constitutes credit event).

<sup>149</sup> They are called Self-Regulatory Organisations SRO's.

<sup>150</sup> Awrey, 'The Dynamics of OTC Derivatives Regulation: Bridging the Public-Private Divide'(n 83) 11.

<sup>151</sup> Referring to Exchanged traded derivatives: 'they provide a single location for buyers and sellers to meet, reducing reach costs, promoting pricing competition through market transparency, and contributing to more resilient and liquid markets' Council of Financial Regulators, 'OTC Derivatives Reform Considerations' (March 2012) 4 <http://www.treasury.gov.au/~media/Treasury/Publications%20and%20Media/Publications/2012/CFR%20report%20on%20over%20the%20counter%20derivatives/Downloads/PDF/CFR%20Report.ashx> accessed 16<sup>th</sup> September 2015.

<sup>152</sup> *ibid.*

price of trades immediately. As a result, the price is likely to be close to market price.

On the other hand, OTC<sup>153</sup> derivatives are individually tailored to meet the specific needs of counterparties<sup>154</sup>. This was traditionally a non-standardised market, where private parties set out their own rules<sup>155</sup>; such flexibility hindered the surveillance and control of the market itself. End-users enter into OTC derivatives either through bilateral transactions or by participating in some structured instruments, such as CDOs and other securitisations<sup>156</sup>. The inherent risk in the OTC market is that the derivatives investor is exposed to the risk that his counterparty may default<sup>157</sup>. Besides, there are concerns regarding the pricing of the derivatives; in these transactions counterparties freely agree the price, which facilitates speculation. Arguably, the post-GFC regulatory reforms have tackled some of these shortcomings.

These traditional differences between exchange and OTC markets have changed with the post-crisis regulatory reforms, mainly because the OTC derivatives market is progressively becoming more standardised, and now is regulated. The reason is that the new regulations, particularly in Europe, are introducing changes to the OTC derivatives trading and post-trading. The post-crisis regulatory reforms - following the G20 statement - seek to ensure that all standardised OTC Derivatives contracts should be traded on exchanges or electronic platforms, where appropriate, and cleared through a central counterparties (CCP).

As has been explained in the second part of this chapter, one of the major changes in the OTC Derivatives Market is the inclusion of new post-trading

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<sup>153</sup> OTC (Over-the-counter) - its name comes from describing the practice of buying shares over bank counters. Edward Green, *United States Regulation of the international securities and derivatives markets* (New York: Aspen Law & Business, 2002) 21.

<sup>154</sup> *ibid* 21.

<sup>155</sup> *ibid* 19.

<sup>156</sup> Awrey (n 83).

<sup>157</sup> Dale (n 43) 153.

market infrastructures; these are Central Counterparties (CCPs) and Trade Repositories (TRs).

The impact of the introduction of Central Counterparties, as new intermediaries of the market, is reflected firstly in the structure of these transactions. The traditional bilateral structure of OTC derivatives has been replaced by the intermediation of Central Counterparties that will become the counterparty of each of the two initial parties. Similarly, the imposition of the mandatory clearing obligation for certain types of derivatives results in a higher standardisation of such products. In the initial stage of its implementation, regulators expected that mandatory clearing would become the general rule for OTC transactions. However, regulators and market participants rapidly recognised that an important portion of OTC derivatives transactions would not be subject to the clearing obligation. Thus, so as to regulate those un-cleared products, regulators decided to increase the margin and liquidity requirements.

However, the task of making OTC derivatives markets more safe and sound did not stop there, and more recently have involved important changes in the trading of OTC derivatives. Now in Europe, two new instruments that are expected to be in force in 2017 are complementing the initial post-trading reform (EMIR). MiFIR and MiDIF II, especially the second, seek to move OTC trading to organised trading venues. Indeed, Michel Barnier, EU Internal Markets Commissioner, stated that MiFID II seeks to put “*an end to the rule of opaqueness, and an end to the reign of over the counter transactions*”<sup>158</sup>. With this panorama, it might be anticipated that the foreseeable consequence of MiFID II forcing a reduction in OTC trading, will be an OTC derivatives market with less liquid and more tailored products.

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<sup>158</sup>Aisha Dudhia, ‘10 Significant Ways MiFID II will change our trading environment Part 1’ (2015) RegTech, 21<sup>st</sup> July <http://regtechfs.com/10-significant-ways-mifid-ii-will-change-our-trading-environment-part-1/> accessed 28<sup>th</sup> August 2015.

Thus, it follows that the content of the post-global financial regulatory reforms are changing the landscape of the OTC derivatives market, and with that, its traditional features as non-standardised and self-regulated market. The reform is clearly a huge step towards greater standardisation, increased transparency, and more regulated markets.

The negotiation of most derivatives transactions follows a general course<sup>159</sup>. It consists of deciding to deal and document it, usually through the use of standard models<sup>160</sup>; the most commonly used is the International Swaps and Derivatives Association (ISDA) Master Agreement<sup>161</sup>. The transaction is then executed according to the terms of the documentation<sup>162</sup>. The content of the OTC derivatives documentation is changing to keep up with the new regulatory changes. During the life of the transaction, it is necessary to 'net'<sup>163</sup> the transactions and to value them, usually using a mark-to-market procedure<sup>164</sup>.

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<sup>159</sup> The expression 'general course' refers to the process of negotiation, execution and settlement of derivatives contracts. *See* Henderson (n 4).

<sup>160</sup> However, it was not always the case because prior to the intervention of ISDA, the majority of OTC derivatives transactions were likely documented in ad hoc agreements. *Awrey* (n 83).

<sup>161</sup> ISDA stands for International Swaps and Derivatives Association; it represents the majority of OTC derivatives market participants. Aiming to foster safe and efficient derivatives markets, ISDA issue standardised documentation to ensure legal certainty and maximum risk reduction through netting and collateralization. In 1987 ISDA commence the publication of standardised master agreements, one of the standards ISDA issues is the ISDA Master Agreement. *See* [www2.isda.org](http://www2.isda.org).

<sup>162</sup> The last version of the ISDA Master Agreement is 2002.

<sup>163</sup> 'Netting is used in the derivatives market to determine: 1) the 'net' value of a series of transactions between market participants; and 2) to 'net' the payments to be made by the parties on a given coupon payment date or upon a termination or maturity date'. *See* Philip Wood, *Law and Practice of International Finance* (Sweet & Maxwell, 2008) 217.

<sup>164</sup> 'Mark-to-market: Marking a transaction to market involves determining the market value of the transaction on a given date. The value is usually set at the price which a party to the transaction would have to pay, or would expect to receive from, a third party in order to induce the third party to enter into a replacement transaction having the exact terms of the transaction in question'. *See* Henderson (n 4).

## 2.3 OTC Derivatives in the Global Financial Crisis and Regulatory Reform

### 2.3.1 OTC derivatives ‘co-caused’ the Global Financial Crisis

In order to understand the role of financial derivatives within the Global Financial Crisis (GFC), it is appropriate to summarise the history<sup>165</sup> before the big crash.

In a nutshell, the origin of the GFC can be understood as a credit crisis<sup>166</sup>. The crisis involved widespread but not necessarily well-understood terms such as Subprime mortgages, Collateralized Debt Obligations CDOs, Frozen Credit Markets, and one specific type of OTC derivatives: the Credit Default Swap or CDS.

The prelude to the panic and crash of September 2008 was a rapid expansion in credit that began in 2002. The expansion in credit financed purchases of real estate in the United States, the UK, South Africa and Iceland<sup>167</sup>. US real estate prices peaked at the end of 2006, but their subsequent decline led to a recession that began in January 2008.

Coming from this period of widespread access to credit, different banks and other financial institutions, seeking to increase their profits, expanded one of the big problems of financial system practices: leverage. Leverage refers to any technique that allows multiplication of the normal results of a deal. In other words, it is to borrow money to amplify the outcome of a deal. This practice increased the profits of all the banks in the international financial system<sup>168</sup>.

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<sup>165</sup> Charles P. Kindleberger and Robert Aliber, *Manias, Panics, and Crashes: A History of Financial Crises* (New York, Fourth Edition, John Wiley & Sons, Inc., 2000) ix.

<sup>166</sup> The Credit Crisis put two groups of people together: homeowners and investors. Homeowners were interested in funding the acquisition of their houses with mortgages and investors, large and interconnected financial institutions, seek to obtain profits. See Robin Blackburn, ‘The Subprime Crisis’ (2008) 50 *New Left Review* March-April, 63.

<sup>167</sup> Kindleberger and Aliber (n 165).

<sup>168</sup> Yuliya Demyanyk and Otto Van Hemert, ‘Understanding the Subprime Mortgage Crisis’ (2011) 1848 *Rev. Financ. Stud.* <http://rfs.oxfordjournals.org/content/24/6/1848.short> accessed 31<sup>st</sup> may 2013.

Kindleberger clearly explains that what happened in the US housing mortgage market was that, ‘as the credit bubble expanded, the lenders extended credit to borrowers who were increasingly less attractive in terms of repayment and their ability and willingness to adhere to the contracts’<sup>169</sup>. As prices rose, both lenders and borrowers were making profits, and ‘agents sought ways to circumvent existing limits or regulations through the use of alternative vehicles that are unregulated’<sup>170</sup>, especially the OTC derivatives contracts. Consequently, limits on these in the form of requiring substantial down payments for house purchases or limits on leverage in various financial markets, including derivatives, looked desirable and could presumably contribute to achieving the goal of fewer and smaller bubbles in these markets<sup>171</sup>.

Seeing the level of profitability of banks, investors were interested in using leverage. To make this real, Wall Street offered a mechanism to connect investors to homeowners (mortgage borrowers)<sup>172</sup>. The mechanism created consisted of allowing the mortgage lender to sell the mortgages to investment banks. Then, investment banks bought thousands of mortgages with borrowed money, and every month they received payments from the homeowners.

The bubble in the US housing market resulted from an extraordinary increase in the demand<sup>173</sup> for mortgages and for mortgage-related securities. However, the demand was accompanied with a misjudgement of real estate trends. US Commercial Banks and Financial Regulators underestimated the risk attached to mortgages and mortgage-related securities; they never considered that prices of residential real estate could decline<sup>174</sup>.

Those mortgage obligations were packaged and then divided according to the level of risk, from the safest to the riskiest. Once they were classified, the

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<sup>169</sup> Kindleberger and Aliber (n 165) 299.

<sup>170</sup> Barkley Rosser Jr and others, ‘A Minsky- Kindleberger Perspective on the Financial Crisis’ (2012) James Madison University, January 45.

<sup>171</sup> *ibid.*

<sup>172</sup> FCIR (n 1) 40.

<sup>173</sup> ‘Part of this demand was from foreign firms, including central banks in Asia, and part of the demand was from the US government-sponsored lenders, Fannie Mae and Freddie Mac, and the Federal Home Loan Banks’ Kindleberger and Aliber (n 165) 299.

<sup>174</sup> *ibid.*

investment bank repackaged them and structured Collateralized Debt Obligations or CDOs.<sup>175</sup> The CDOs worked as follows: The CDO rating is based on its ability to service debt with the cash flows generated by the underlying assets; in this case, the underlying assets were the mortgages. Thus, when payments from the homeowners were received, the sources served first the safest obligations, while the riskiest ones were fully covered if the sources of homeowners' repayment were enough. In other words, the level of risk increases when moving down in the CDO's capital structure<sup>176</sup>. To compensate this situation, investment banks used the rate of return. Hence, a higher rate was payable to the riskiest obligations and a lower rate to the safest ones.

To make the safest obligations even safer, banks offered one type of financial derivatives called Credit Default Swaps or CDS. As explained before, CDS are transactions according to which a protection seller, called a guarantor, agrees to pay the protection buyer (the creditor) an amount if, during the agreed period, a prescribed *credit event* occurs in the reference obligation<sup>177</sup>. These transactions were created to reduce the risk for the parties who purchased protection; instead, they became factors that aggravated the effects of the massive default that resulted in systemic failure.

In general<sup>178</sup>, the purpose of this type of derivatives contracts was to seek that those collateralized obligations were well-rated by the Credit Rating Agencies. The rating determined the confidence of those who would buy these obligations. Thanks to this rating, the investor could sell the safest obligations to the investors interested only in safe investments, and the riskiest to hedge funds and other high-risk profile investors. The market had three agencies: Moody's, Standard & Poor and Fitch.

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<sup>175</sup> Darrell Duffie and Nicolae Gârleanu, 'Risk and Valuation of Collateralized Debt Obligations' (2001) 44 *Financial Analysts Journal* 41 <http://www.jstor.org/stable/4480294> accessed 27<sup>th</sup> may 2013.

<sup>176</sup> *ibid* 43.

<sup>177</sup> Gengatharen (n 135) 59.

<sup>178</sup> The specific case of the AIG near-collapse has some additional considerations regarding the reasons that triggered rating downgrades and the role of CDS. *See* Dolmer (n 99) 40.

However, the problems started when the US housing market changed and the lenders created the Sub-prime mortgages<sup>179</sup>, which were the turning point. These mortgages were named 'sub-prime' because borrowers did not have to comply with the ordinary conditions in order to have access to those mortgages. For instance, borrowers were not required to make a down payment or to prove income. Then, those new borrowers started to default and even those homeowners who had enough to repay their mortgages decided to stop paying too, mainly because the value of their houses started to drop<sup>180</sup>. Both financial institutions and regulators underestimated the credit risks attached to mortgages and mortgage-related securities.

The banks received many houses from their borrowers, resulting in an excessive supply. The consequences of the massive default affected all those who were in the chain of mortgages, CDOs and CDS - namely lenders, banks and investors.

All of them started to look desperately for someone who wanted to buy the defaulted obligations, but of course no one will acquire positions in such a risky investment, and the domino effect followed with the bankruptcy of the biggest financial firms. The fall of Lehman Brothers on 15<sup>th</sup> September 2008 sent a message of fear to the rest of the world. The US Government faced the decision of whether to rescue Lehman Brothers. As the decision was to let them fail and go into Chapter 11, the failure of Lehman had repercussions around the world<sup>181</sup>.

Suddenly, all big banks understood that none of them were safe and that any bank could fail. At that point, big financial institutions considered that their

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<sup>179</sup> Demyanyk and Van Hemert (n 168) 1857.

<sup>180</sup> Kindleberger and Aliber (n 165) 299.

<sup>181</sup> The immediate impact came in London, where the UK Lehman Brothers instantly had to shut down operations. There was an international panic around the financial system, especially due to the possibility that many other banks could follow Lehman and the collateral damage it would cause. The financial meltdown effects were epidemic around the world in terms of unemployment. Perhaps the most astonishing collapse was in China by the end of 2008. *See Reuven Glick Mark M. Spiegel, 'Asia and the Global Financial Crisis' (Federal Reserve Bank of San Francisco, Asia Economic Policy Conference, October 2009) 11*



counterparts were vulnerable, so they blocked all financing channels. The credit system stopped working at that moment<sup>182</sup>.

Much of the risks of Credit Default Swaps and other financial derivatives were concentrated in a few very large banks, investment banks, and others that dominated dealing in the OTC derivatives market. It is reported<sup>183</sup> that among the US Bank holding companies - 97% of the notional amount of OTC derivatives - millions of contracts were traded by just five large institutions in 2008: JP Morgan Chase, Citi Group, Bank of America, Wachovia and HSBC. Similarly, other large institutions were teetering on the edge of failure. For instance, the nearly-collapsed AIG<sup>184</sup>, the largest insurer in the US, through a subsidiary had issued large volumes of CDS and faced losses up to \$61.7 billion in 2008.

It came to light that certain activities and securities instruments, among them the OTC derivatives, had led to the exacerbation of liquidity problems and increased the leverage along different types of financial institutions. By that time, 'market participants and regulators would find themselves straining to understand an unknown battlefield shaped by unseen exposures and interconnections as they fought to keep the financial system from collapsing'<sup>185</sup>.

Although it has been argued that Credit Default Swaps were not the direct cause of the Global Financial Crisis, saying that CDS only reflected the 'under-priced risk in the mortgage market'<sup>186</sup>, it cannot be ignored that CDS contributed to the aggravation and expansion of the effects of the crisis. That's why the clear identification of the market failures has assisted regulators in deciding the new approaches of regulation and supervision of the OTC derivatives market.

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<sup>182</sup> Dolmer (n 99).

<sup>183</sup> FCIR (n 1) 49.

<sup>184</sup> *ibid* 50.

<sup>185</sup> *ibid* 51.

<sup>186</sup> Domler (n 99) 40.

### 2.3.2 Reasons to regulate the OTC Derivatives Market

The traditional rationale to regulate financial markets is the correction of market failures related to asymmetric information and to externalities<sup>187</sup>; the aim is to reduce systemic risks and to ensure that markets are fair, efficient, and transparent<sup>188</sup>. Consistently, there is a movement towards better regulation and the concern to obtain competitive advantage through efficient regulation<sup>189</sup>. However, there are some inner dangers related to financial market intervention, and a constant risk of ‘over-reacting’ when implementing regulatory reforms, particularly in post-crisis periods<sup>190</sup>.

One of the difficulties faced by financial regulators is to deal effectively with the complexity and the rapid pace of financial markets’ growth. The task to design ‘good rules’<sup>191</sup> which support strong, safe and sound markets and avoid malign effects is not easily achieved<sup>192</sup>. In addition, there is a challenge to conduct financial regulation in a manner that procures strong markets, particularly to maintain the relationship between capital markets rules and financial sector growth<sup>193</sup><sup>194</sup>.

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<sup>187</sup> Niamh Moloney, ‘Financial Services and Markets’ in R. Baldwin, M. Cave, and M. Lodge, (eds), *The Oxford Handbook of Regulation* (Oxford, 2010).

<sup>188</sup> International Organisation of Securities Regulation ‘Objectives and Principles of Securities Regulation’ (IOSCO, 2008).

<sup>189</sup> Committee on Capital Markets Regulation, ‘Interim Report of the Committee on Capital Markets Regulation’ (2006).

<sup>190</sup> Moloney, ‘Financial Services and Markets’ (n 187).

<sup>191</sup> About the discussion of What is ‘good regulation’ Robert Baldwin, Martin Cave and Martin Lodge, *Understanding Regulation* (Oxford University Press, 2012) Chapter 3.

<sup>192</sup> Bernard Black ‘The Legal and Institutional Preconditions for Strong Securities Markets’ (2001) *UCLA Law Review* 48 781-856.

<sup>193</sup> The roots of this innovative and provocative scholarship lie in the late 1990s and in the series of ground-breaking studies by financial economists La Porta, Lopez-de-Silanes, and Vishny (LLSV), which considered the relationship between capital markets rules and legal origins and indicators of economic development and financial sector growth. Moloney, ‘Financial Services and Markets’ (n 187).

<sup>194</sup> Financial Systems have a hand in enhancing the information content of potential investments, which may improve the allocation of resources in the economy. Jose Miguel Mendoza, ‘The Fractures in Latin American Finance’. (2013) Social Science Research Network SSRN. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2394708](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2394708) consulted on 13<sup>th</sup> march 2014.

In general, after the Global Financial Crisis, regulation is procured to avoid the adverse effects of the widespread reliance on internal risk-management models and processes, as well as to control the undesirable consequences of permissive self-regulation<sup>195</sup>. Therefore, regulators have been empowered with more intrusive intervention tools, and there is a strong emphasis on early detection and prevention of risks.

In order to understand the current regulatory reforms of the OTC derivatives, this chapter explains the failures affecting the market and the rationale of using regulation to correct them.

### **2.3.2.1 Identified failures of the OTC derivatives market**

#### **2.3.2.1.1 Lack of transparency of the OTC market**

Transparency ‘promotes the orderly and efficient functioning of financial markets by making participants better informed’<sup>196</sup>. The lack of transparency<sup>197</sup> in the market for OTC derivatives let companies like AIG over-extend themselves and sell more credit protection for residential mortgage-backed securities (RMBS) than it could cover<sup>198</sup>. AIG had \$1 trillion in assets and lost \$99.3 billion during 2008<sup>199</sup>. On September 16, 2008 AIG’s securities lending business and its credit default swap business – the two main activities that contributed to the AIG crisis – cumulated losses on the order of \$50 billion<sup>200</sup>. In

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<sup>195</sup> *ibid.*

<sup>196</sup> Definition used by the IMF <http://www.imf.org/external/np/exr/ib/2001/042601b.htm>.

<sup>197</sup> In the area of derivatives market is debatable whether transparency is achievable and desirable. The ethical aspects of the OTCDM will be studied in future research.

<sup>198</sup> FCIR (n 1).

<sup>199</sup> American International Group (AIG), ‘Form 10-K Annual Report for the Fiscal Year ended December 31, 2008’ (2008) AIG Investor Relations [http://www.aig.com/Chartis/internet/US/en/2008-10ka\\_tcm3171-440903.pdf](http://www.aig.com/Chartis/internet/US/en/2008-10ka_tcm3171-440903.pdf) accessed 18<sup>th</sup> January 2016.

<sup>200</sup> Robert McDonald and Anna Paulson, ‘AIG in Hindsight’ (2015) 29 *Journal of Economic Perspectives* 2 Spring, 82.

the opinion of US Treasury Department secretary Timothy Geithner,<sup>201</sup> the lack of transparency in the OTC derivative markets, combined with insufficient regulatory policing powers in those markets, left the financial system more vulnerable to fraud and potentially to market manipulation.

The financial crisis in 2008 saw the emergency merger of Bear Stearns<sup>202</sup> with J.P. Morgan Chase, the failure of Lehman Brothers<sup>203</sup>, and the near-failure of the insurer American International Group (AIG)<sup>204</sup>, all of which were major institutional participants in the derivatives market<sup>205</sup>. Problems within these firms revealed an uncertainty about the amount and interconnectedness of derivatives exposure in the financial system<sup>206</sup>, and the weaknesses of the securitisation process, which, in some cases, contributed to the freezing up<sup>207</sup> of markets, or forced the Federal Reserve and the federal government to intervene in others<sup>208</sup>.

As explained earlier, derivatives are efficient tools to the hedging and exchange of risk in the financial system. However, the Global Financial Crisis proved that the derivatives market poses a substantial threat to financial stability. The lack of transparent reporting of trades and exposures let both regulators and investors uninformed about where risks are concentrated within the system.

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<sup>201</sup> Austin Kilgore, 'Geithner Blames Lack of Transparency for OTC Derivatives Hit on Market' (2009) Housingwire July <http://www.housingwire.com/news/2009/07/10/geithner-blames-lack-transparency-otc-derivatives-hit-market> accessed 21<sup>st</sup> June 2013.

<sup>202</sup> Corey Hajim and Adam Lashinsky, 'How Bear Stearns Lost its Way' (2007) Fortune 21<sup>st</sup> August [http://money.cnn.com/2007/08/20/magazines/fortune/bear\\_stearns.fortune/index.htm](http://money.cnn.com/2007/08/20/magazines/fortune/bear_stearns.fortune/index.htm) accessed 24<sup>nd</sup> June 2013.

<sup>203</sup> Eric Rosengren, 'Challenges in Resolving Systematically Important Financial Institutions' (2009) Federal Reserve Bank of Boston May <http://bostonfed.org/news/speeches/rosengren/2009/050509.pdf> accessed 24<sup>nd</sup> June 2013.

<sup>204</sup> Adam W. Glass, 'The regulatory drive towards central counterparty clearing of OTC credit derivatives and the necessary limits on this' (2009) 4 CMLJ (suppl 1) S85.

<sup>205</sup> FCIR (n 1).

<sup>206</sup> ISDA, 'Transparency and Over-the-counter derivatives: The role of transaction transparency' (ISDA Research Notes, Number 1, 2009).

<sup>207</sup> "The Credit freeze began on 9 August 2007, a few days later Lehman Brothers failed. On Friday 17<sup>th</sup> March, Bear Stearns' shares collapsed by 50 percent, prompting the Fed to engineer its bailout and takeover by JP Morgan, and creating the 'moral hazard' problem that haunted policymakers during the summer of 2008". Paul Mason, *Meltdown: The end of the Age of Greed* (Verso, 2010) 105.

<sup>208</sup> Kent Cherny and Ben R. Craig, 'Reforming the Over-the-Counter Derivatives Market: What's to Be Gained?' (2010) Federal Reserve, Bank of Cleveland Economic Commentary, July.

Additionally, the limited transparency of overall counterparty credit risk exposures in the OTC derivatives precipitated a loss of confidence and market liquidity in times of stress. Financial institutions faced considerable difficulties in monitoring, controlling and verifying the risks associated with their derivatives dealers. In consequence, regarding the provision of greater transparency, the aim established is to access better information<sup>209</sup>. This is possible when there is an effective and comprehensive clearing system, adequate rules of reporting information, and the constant updating of terms in the documentation<sup>210</sup>.

The lack of transparency as a failure is closely related to information asymmetries affecting the market. The traditional perception of OTC derivatives market as an ultra-specialised and extraordinarily complex sector is fed by the asymmetries of information affecting the understanding of these transactions. The issue not only affects third parties, as regulators and consumers, but also dealers and end-users. For instance, it is well known that investors in the OTCDM transact with little knowledge of the prices that are currently available from other counterparties in the market<sup>211</sup>. The opaqueness of the market lets investors in the dark about most attractive contractual terms and who might be offering them<sup>212</sup>. Moreover, in the OTCDM information asymmetry might also be associated with risks and the creditworthiness of those who trade them<sup>213</sup>. Given the complexity of certain transactions - exotic products - it is highly probable that end-users enter into such transactions with imperfect information.

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<sup>209</sup> G20 Leaders Pittsburgh Summit September 2009 <http://www.g20.utoronto.ca/2009/2009communique0925.html> accessed 26th May 2013.

<sup>210</sup> House of Lords- European Union Committee, 'The Future Regulation of Derivatives Markets: is the EU on the right track? 10<sup>th</sup> report of session (2009-2010) 22 <http://www.parliament.the-stationery-office.co.uk/pa/ld200910/ldselect/ldcom/93/93.pdf> accessed 26<sup>th</sup> May 2013.

<sup>211</sup> Julien Cujean and Rémy Praz, 'Asymmetric Information and Inventory Concerns in Over-the-Counter Markets' (April 1, 2014) <http://www.juliencujean.com/otcInventory.pdf> accessed 18<sup>th</sup> January 2016.

<sup>212</sup> Darrell Duffie, *Dark Markets: Asset Pricing and Information Transmission in Over-the-Counter Markets* (Princeton University Press, 2012).

<sup>213</sup> Craig Pirrong, 'The Economics of Clearing in Derivatives Markets: Netting, Asymmetric Information, and the Sharing of Default Risks Through a Central Counterparty' (January 8, 2009) <http://ssrn.com/abstract=1340660> accessed 18<sup>th</sup> January 2016.

These asymmetries of information are divided into two categories according to the market actors affected<sup>214</sup>.

One first category of asymmetry of information might exist between OTC derivatives dealers and their end-users or clients. This category is usually related to specific expertise and market conditions, as well as pricing information. The second category appears in the context of the relationship between the firms and their security holders. This type of asymmetry is usually related to the impact of OTC derivatives positions on the financial condition of the firm. This is that the level and types of risk that a firm is taking when trading OTC derivatives changes rapidly, therefore the risk profile and the financial health of the firm is difficult to measure. The trace of types of risk in OTC derivatives trading and the difficult access to the specific relevant information compound the opacity of the OTC derivatives market.

A tool to improve transparency<sup>215</sup> is the registration of OTC derivative trades in trade repositories.<sup>216</sup> A trade repository is an entity that maintains a centralised electronic record (database) of transaction data<sup>217</sup>. By centralising the collection, storage, and dissemination of data, ‘a well-designed Trade Repository (TR) that operates with effective risk controls can serve an important role in enhancing transparency of information to relevant authorities and the public, promoting financial stability, and supporting the detection and prevention of

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<sup>214</sup> Awrey (n 83).

<sup>215</sup> Commission Communication to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Central Bank- Ensuring efficient, safe and sound derivatives markets: Future Policy Actions. (2009b) COM [2009] 563 final.

<sup>216</sup> The regulation applicable to Trade Repositories and Central Counterparties is called EMIR. The Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4<sup>th</sup> July 2012 on OTC derivatives, central counterparties (CCPs) and trade repositories (TRs) (EMIR) entered into force on 16<sup>th</sup> August 2012.

<sup>217</sup> EMIR (Titles VI and VII of Regulation EU n°648/2012), ESMA has direct responsibilities regarding the registration, supervision and recognition of trade repositories. In particular, Article 55 of EMIR provides that “a trade repository shall register with ESMA. The registration of a trade repository shall be effective for the entire territory of the Union” <http://www.esma.europa.eu/page/Trade-repositories> accessed 27<sup>th</sup> August 2015.

market abuse’.<sup>218</sup>The study of trade repositories rules contained in European Market Infrastructure Regulation (EMIR) goes beyond the scope of this research.

The issues regarding transparency also include the valuation of OTC derivatives. As explained, the value of a derivative depends upon the value of the underlying asset. However, in the OTC derivatives market, where there is not a reference price – as in exchange-traded derivatives - the lack of clarity in determining the value is an issue. In this sense, the ‘OTC derivatives markets may also lead to less efficient underlying markets since information on prices and sizes of the trades is not publicly known’<sup>219</sup>. As a result, regulators and most market participants have an opaque view of the way in which OTC derivatives are valued.

Arguably, the introduction of Central Counterparties (CCPs) to the OTC derivatives market is helping to solve the failure of a lack of transparency. This is a partial solution, in the sense that CCPs represent a step forward; they have an organised structure of the market, or at least a part of it, where the information about contracts, end-users positions, pricing and other transaction details will be centrally administered by the CCP, and made available to anyone interested, especially regulators. However, some concerns may arise relating to the practical impact that CCPs’ access to that information might have for the benefit of regulation. In other words, the fact that CCPs will have access to all the relevant information does not necessarily mean that those interested, especially regulators, will have a complete knowledge and understanding of the transactions. This is because access to information in a complete and timely manner is only one part of the correction of the lack of transparency.

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<sup>218</sup> CPSS-IOSCO- Consultative report on Principles for financial market infrastructures (March 2011)9 (CPSS-IOSCO Pfmi).

<sup>219</sup> Henderson (n 4) 264.

### 2.3.2.1.2 Inadequate Risk Management

In order to explain the issue of risk management in the OTC derivatives market, it is first important to clarify that it refers to the management of the risk of contagion of massive defaults – credit risk - and its impact on financial stability. In other words, the credit risk of an individual transaction is not what generates much concern; it is the default multiplied on several OTC derivatives that prompts financial instability and concretes systemic risks.

Systemic risk is understood as being ‘a trigger event, such as an economic shock or institutional failure with a chain of bad economic consequences’<sup>220</sup> that could impact financial institutions, markets or both. The OTC derivatives market proved to be one of those markets where systemic risk concretes through the interconnectedness of OTC markets participants. As opposed to the typical bank systemic risk, where the institutions affected are banks and clearing and settlement institutions only, the failure of one large OTC derivatives dealer is promptly communicated to other institutions and markets<sup>221</sup>.

The inadequate risk management of the derivatives market was at the heart of the Global Financial Crisis. As explained before, many of the risks of Credit Default Swaps and other financial derivatives were concentrated in a few very large banks, investment banks, and others that dominated dealings in the OTC derivatives market. It is reported<sup>222</sup> that among the US Bank holding companies, which were 97% of the notional amount of OTC derivatives, millions of contracts were traded by just five large institutions in 2008: JP Morgan Chase, Citi Group, Bank of America, Wachovia and HSBC. Similarly, other large institutions were teetering on the edge of failure. For instance, the nearly

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<sup>220</sup> Steven Schwarcz, ‘Systemic Risk’ (2008) 97 Geo. L. J. 193, 198.

<sup>221</sup> *ibid* 201.

<sup>222</sup> FCIR (n 1) 49.



collapsed AIG<sup>223</sup>, the largest insurer in the US, through a subsidiary had issued large volumes of CDS and faced losses of up to \$61.7 billion in 2008.

In the particular case of AIG, its transactions of exotic derivatives had a significant impact on its solvency. AIG needed increasingly large amounts of cash as margin for the credit default swaps (CDS), thus AIG sold it to many other investors as the credit-rating agencies downgraded its risk profile<sup>224</sup>. The justification of the massive government assistance to AIG was that if it failed, many of the counterparties that had bought the swaps that it had sold would also fail.

The AIG example leads this research to consider that risk-based regulation is ‘perhaps a better way to think about systemic risk, not to focus solely on the safety and soundness on critical financial intermediaries’<sup>225</sup>, but aiming at financial stability. However, to meet this goal the risk-based approach needs to move towards an administrative regime to connect macro and micro prudential tools. As was explained in chapter 1, such regime would ensure information sharing, joint analysis of risks, and cooperation between authorities<sup>226</sup>. Although macro and microprudential authorities use prudential policy instruments and tools (e.g. capital and liquidity buffers and balance sheet restrictions) in their pursuit of different objectives, they serve as backstop of resilience both to the firm and to the system<sup>227</sup>.

Therefore, regulatory concern lies on the adverse effects that the failure of a large derivatives dealer has for financial stability. In such a case, the consequences extend not only to counterparties but also damage the liquidity of

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<sup>223</sup> FCIR (n 1) 50.

<sup>224</sup> Kindleberger and Aliber (n 165) 300.

<sup>225</sup> Schwarcz (n 219) 203.

<sup>226</sup> Jacek Osiński, Katharine Seal, and Lex Hoogduin, ‘Macroprudential and Microprudential Policies: Toward Cohabitation’ (IMF, Monetary and Capital Markets Department June 2013) 4 <https://www.imf.org/external/pubs/ft/sdn/2013/sdn1305.pdf> accessed 21<sup>st</sup> January 2016.

<sup>227</sup> *ibid* 8.

derivatives markets. This is called cross-border transmission of default.<sup>228</sup> Additionally, derivatives markets possess a high risk of cross-market<sup>229</sup> transmission of financial shocks. The closure between derivatives and the underlying cash markets creates channels among markets for the communication of financial disturbances.

When regulators are in the light of cross-border failures, as was the case with the OTC derivatives market, the gaps in regulation become evident. For instance, in the Global Financial Crisis, while central banks coordinated well how to address the liquidity crisis, in the international financial markets regulators did not know what to do when it came to dealing with failing financial institutions<sup>230</sup>. In particular, the massive default showed the weakness of regulation of OTC derivatives markets when managing the concentration of risk in a few large dealers. In other words, the regulation in place did not allow national regulators, either individually or in cooperation with other regulators, to properly address systemic risk.

In consequence, one of the priorities of the post-crisis regulation should be to address the issues of concentration of risk and excessive interconnectedness of major OTC derivatives dealers with other markets, seeking to avoid the concretion of systemic risk. Most especially, the OTC derivatives market requires effective regulation; otherwise ‘the externalities caused by systemic risk would not be prevented or internalized’<sup>231</sup>; and since market participants are mainly interested in protecting their own interests<sup>232</sup>, regulators have the responsibility to ensure they have efficient tools to preserve financial stability.

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<sup>228</sup> *ibid.*

<sup>229</sup> As predicted in the previous survey, Hedge Funds have become a major force in the Derivatives Market - their share of volume in both buying and selling having almost doubled since 2004. Banks still constitute the majority of Market participation. BBA, *BBA Credit Derivatives Report 2006 Executive Summary* (2006) 6 <https://www.bba.org.uk/publication/books-reports-and-subscriptions/bba-credit-derivatives-report-2006/> accessed 10<sup>th</sup> October 2014.

<sup>230</sup> Schwarcz (n 219) 205.

<sup>231</sup> *ibid* 206.

<sup>232</sup> *ibid.*

One of the major changes in the regulation of the OTC derivatives market is the use of Central Counterparties (CCPs). This is because the traditional instruments to manage credit risk in OTC derivatives are only useful to manage the risk of individual transactions. They are: requiring collateral, entering into netting agreements and relying on credit ratings to assess risk. However, there were no regulatory mechanisms designed to manage the concentration of market risk and its consequent implications for financial stability. That is why the proposition of Clearing Houses being structured as Central Counterparties (CCPs) has gained acceptance among regulators.

The rationale is that the CCP interposes itself as the legal counterparty to every trade. This arrangement places the CCP in ‘a unique position in that it has direct interaction and counterparty risk exposure with each trading party’<sup>233</sup>. With the creation of the CCP, all those interested in trading derivatives and cleared them must comply with certain membership requirements<sup>234</sup> or become clients of one clearing member. The CCP will support the losses of any cleared transaction. Hence, the default will not only affect the large dealer - as it is without a CCP - but will be mutualised among all the CCP’s members. Therefore, this change in the OTC derivatives post-trade infrastructure<sup>235</sup> ‘reduces the risk that failure by single derivatives counterparty can cascade into a system-wide crisis’<sup>236</sup>. Additionally, a CCP has the potential to reduce risks significantly for participants through the multilateral netting<sup>237</sup> of trades and by imposing more effective controls on all participants.

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<sup>233</sup> Douglas D. Evanoff, Daniela Russo, and Robert S. Steigerwald, ‘Policymakers, researchers, and practitioners discuss the role of central counterparties’ (2006) 4Q Economic Perspectives-Federal Reserve Bank of Chicago and European Central Bank. [http://econpapers.repec.org/article/fipfedhep/y\\_3a2006\\_3ai\\_3aqiv\\_3ap\\_3a2-21\\_3an\\_3av.30no.4.htm](http://econpapers.repec.org/article/fipfedhep/y_3a2006_3ai_3aqiv_3ap_3a2-21_3an_3av.30no.4.htm) accessed 26<sup>th</sup> may 2013.

<sup>234</sup> The clearing membership requirements are: The capital required for each member shall be enough to comply with its own obligations with clients but also to assume other members default. In the case of contingency liability: The risk management marking the portfolio on a daily basis and managing eventual defaults of clients: and the operational capability. Craig Pirrong, ‘The Economics of Central Clearing: Theory and Practice’ (2011) ISDA Discussion Papers N 1 May.

<sup>235</sup> The post-trade market infrastructure is the term use to include Trade Repositories and Central Counterparties.

<sup>236</sup> Glass (n 203).

<sup>237</sup> See Wood (n 163) 217.

Finally, it is important to clarify that Central Counterparties CCPs are not new institutions. What is new is their incorporation in the OTC derivatives market. There are other markets that have used these institutions to clear<sup>238</sup> and settle<sup>239</sup> their transactions, for instance securities market<sup>240</sup> and exchange-traded derivatives<sup>241</sup>. The debate lies on the expected benefits of implementing CCPs in the OTC derivatives market, namely improving market resilience by lowering counterparty risk and increasing transparency. However, it is also argued that ‘CCPs alone are not sufficient to ensure resilience and efficiency of derivatives markets’<sup>242</sup>.

### 2.3.2.2 Consequence of these failures: The Concretion of Systemic Risk

The concept of systemic risk<sup>243</sup> surrounds the critiques of the OTC derivatives market and can be identified as the major cause of the failures affecting the market. It is defined as the ‘risk of a sudden and anticipated event that would damage the financial system to such an extent that economic activity in the wider economy would suffer’<sup>244</sup>.

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<sup>238</sup> After an exchange involving financial instrument is entered into, it must be cleared and ultimately settled. These terms have different meanings from market to market. In general, however, ‘clearing’ involves post-trade operations including trade-matching, confirmation and risk management. Glass (n 203) s82.

<sup>239</sup> ‘Settlement involves the transfer of money or assets by a party to perform and discharge its obligations under a trade’. R Bliss and Steigerwald, ‘Derivatives Clearing and Settlement: A comparison of Central Counterparties and Alternative Structures’ (2008) 30 *Economic Perspectives* 22

<sup>240</sup> Glass (n 203) s82.

<sup>241</sup> *ibid* 3.

<sup>242</sup> Stephen Cecchetti, Jacob Gyntelberg and Marc Hollanders, ‘Central Counterparties for Over-the-Counter Derivatives’ (2009) BIS Quarterly Review, September 45.

<sup>243</sup> ‘Systemic risk is probability that the financial system will fail to function as needed to support economic activity in the aggregate’. Jack Selody, ‘The nature of Systemic Risk’ in John Raymond LaBrosse, Rodrigo Olivares-Caminal and Dalvinder Sing (eds), *Managing Risk in the Financial System* (Edward Elgar Publishing Limited, 2011) 20.

<sup>244</sup> See Group of Thirty, *Global Institutions, National Supervision and Systemic Risk, A study Group Report* (Washington DC: Group of Thirty, 1997) 3.

Regulators aim after Global Financial Crisis to reduce systemic risk in the financial system.<sup>245</sup> The highlight is on the need to oversee macro and micro-prudential matters, especially of the markets compromised during the crisis, to avoid gaps in the regulation of the whole financial system which could materialise into possible systemic risks<sup>246</sup>. Regulators are expected to conduct stronger oversight and to provide better regulatory incentives for infrastructure improvements to reduce counterparty credit risk and bolster market liquidity, efficiency, and transparency. Used responsibly with these reforms, over-the-counter derivatives can provide important risk management and liquidity benefits to the financial system.

### 2.3.2.3 Regulatory Failure and The Regulatory and Supervisory Response

The rhetoric surrounding financial regulation and the call for reform after times of crises<sup>247</sup> is usually inspired by the detection of serious malfunctions<sup>248</sup>, and the need for correction of certain market failures. It might be expected that regulatory reforms come as a natural response to events of financial distress; however, this is in fact a heavily contested territory<sup>249</sup>. The debate<sup>250</sup> moves between the two extremes, from those who advocate the necessity of a rigid strict

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<sup>245</sup> Systemic Risk in securities market was explicitly accepted by the International Organisation of Securities Commissions (IOSCO) Objectives and Principles. IOSCO, 'Global Securities Regulators Adopt New Principles and Increase Focus on Systemic RISK', (2010) IOSCO Press Release, 10<sup>th</sup> June IOSCO/MR/10).

<sup>246</sup> Gillian Garcia, 'The Troubled Asset Relief Program: has forbearance as far as the eye can see saved the US economy?' in John Raymond LaBrosse, Rodrigo Olivares-Caminal and Dalvinder Sing (eds), *Managing Risk in the Financial System* (n 242) 409.

<sup>247</sup> "The major reform movements have typically been episodic and reactive to periods of market expansion and subsequent turbulence, in particular where these periods impact on households who are otherwise usually politically quiescent on financial market matters". Ribstein, L. 'Bubble Laws', *Houston Law Review*, 40:77-98 (2003) in Moloney, 'Financial Services and Markets' (n 187) 438.

<sup>248</sup> Howard Davis and David Green, *Global Financial Regulation: The Essential Guide* (Polity, 2008).

<sup>249</sup> *ibid.*

<sup>250</sup> "As the crisis in the financial system has deepened and spread into the real economy there has been much fundamental 'back to basics' rethinking around some of the assumptions made about the optimal structures, institutions, objectives and substantive content of financial regulation both in the UK and indeed around the world that cannot be effected without changes to the attendant legal institutions and codes of financial regulation". Joanna Gray, 'Financial Regulation before and after Northern Rock' in Joanna Gray and Orkun Akseli, *Financial Regulation in Crisis? The Role of Law and the Failure of Northern Rock* (Edward Elgar, 2011) 72.

control, to those who prefer no state regulatory interference whatsoever<sup>251</sup>. Moreover, the development and reform in financial regulation usually involves the use of incentive structures<sup>252</sup>; it strives to induce the regulated to adjust their own actions and responses. Some authors affirm that regulatory reform post-GFC is particularly interesting, because it is said to respond ‘to the reactive quality of regulatory reform, which has characterised the last thirty years’<sup>253</sup>. However, such a reactive character can be hardly distinct in the post-GFC reforms, if compared to the previous process of reform in financial markets. In general, financial regulation reforms are almost always driven to deliver a paradigmatic and radical response to crisis conditions.

All these considerations are relevant to justify the content of the post-GFC regulatory reform. Particularly in the case of the OTC derivatives market, the Global Financial Crisis demonstrated a regulatory failure in a fragile market infrastructure, along with the market failures explained before. In essence, the OTC derivatives market lacked regulatory practices and risk management tools that kept pace with the complexities and hidden risks of certain financial instruments<sup>254</sup>. Indeed, the US Government accepted that by 2008 the ‘regulatory framework with respect to derivatives was manifestly inadequate’<sup>255</sup>; regulators were incapable of managing the consequences of the crisis<sup>256</sup>. Similarly, in the

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<sup>251</sup> “Indeed, many ‘liberal’ academic economists, e.g. supporters of free banking such as Dowd and Benston and Kaufman, would attribute many of [the] crises and problems to the (indirectly malign) effects of regulatory efforts - perhaps the most extreme example of *iatrogenesis* (medically induced illness) ever known”. Charles Goodhart, Philipp Hartman, David Llewellyn, Liliana Rojas-Suarez, Steven Weisbrod, *Financial Regulation: Why, how and where now* (Routledge and Bank of England, 1998) 2.

<sup>252</sup> *ibid* 44.

<sup>253</sup> Moloney, ‘Financial Services and Markets’ (n 187) 439.

<sup>254</sup> Selody (n 242) 29.

<sup>255</sup> FCIR (n 1) 49.

<sup>256</sup> The IMF highlights the limited role of regulators and supervisors in the midst of the GFC: ‘Financial liberalization and deregulation constitute a fourth commonly identified contributor to crisis conditions. Observers have emphasized such moves as the removal of barriers between commercial and investment banking in the United States and the greater reliance of banks on internal risk management models, all of which occurred without a commensurate buildup in supervisory capacity. Conversely, regulation and supervision were slow again to catch up with new developments, in part due to political processes and capture, and failed to restrict excessive risk-taking. Risks, notably in the ‘shadow banking system’ but also at large, internationally active banks, were permitted to grow without much oversight, leading eventually to both bank and nonbank financial instability’ IMF, ‘The Regulatory Responses to the Global Financial Crisis: Some Uncomfortable Questions’ (WP/14/46, March 2014, 6.

UK, George Osborne accepted that the crisis ‘globally as well as in the UK was caused both by failures in the financial sector, and by failures in regulation of the financial sector’<sup>257</sup>.

Recognising the need for regulation and supervision of OTC derivatives markets, in September 2009 (Pittsburgh Summit), the G20 leaders set out the fundamental guidance stating:

*“All standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end- 2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements. We ask the FSB and its relevant members to assess regularly implementation and whether it is sufficient to improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse”.*

This commitment was endorsed by the November 2010 Seoul Summit, when G-20 Leaders asked the Financial Stability Board to monitor OTC derivatives market reform on a regular basis. There have been subsequent reports informing about the advances made<sup>258</sup>. Additionally, the role of standardisation through Central Counterparties was encouraged at the G20 London Summit 2009. During the crisis period, IOSCO’s standard-setting functions moved towards the risk regulation agenda<sup>259</sup>. IOSCO reviewed<sup>260</sup> its Objectives and Principles<sup>261</sup> and added eight new principles, including two focused on the efficient

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<sup>257</sup> HM Treasury-FCA (2011b), ‘A New Approach to Financial Regulation: The Blueprint for Reform’ CM8083 (June 2011) 3.

<sup>258</sup> FSB, OTC Derivatives Market Reforms: FSB Report implementing OTC Derivatives Market Reforms 25th October 2010; The Ninth Progress Report on Implementation 24<sup>th</sup> July 2015.

<sup>259</sup> Eilís Ferran, Niamh Moloney, Jennifer G. Hill, John C. Coffee, Jr., *The Regulatory Aftermath of the Global Financial Crisis* (Cambridge University Press, 2012)152.

<sup>260</sup> ‘IOSCO was persuaded that its Objectives and Principles were not designed to prevent systemic risk and were therefore insufficient’. Karmel, Roberta S., ‘IOSCO’s Response to the Financial Crisis’ (March 16, 2012). Brooklyn Law School, Legal Studies Paper No. 268 <http://ssrn.com/abstract=2025115> accessed 18<sup>th</sup> January 2016.

<sup>261</sup> IOSCO, Objectives and Principles of Securities Regulation (Sep. 1998). These principles were designed in response to the Asian Financial Crisis of 1998.

management of systemic risk<sup>262</sup>. Amongst other initiatives<sup>263</sup>, IOSCO is committed to promoting transparency and soundness in the OTC derivatives market. To that end, IOSCO formed a Task Force on OTC Derivatives Regulation with the objective to coordinate regulators' efforts to work together in the development of supervisory and oversight structures related to the OTC derivatives market<sup>264</sup>. IOSCO has issued international standards for the regulation of market participants that are in the business of dealing, making a market or intermediating transactions in OTC derivatives ("OTC derivative market intermediaries" or "DMIs")<sup>265</sup>. Moreover, IOSCO and CPSS published the Principles of Financial Market Infrastructures that are applied to Central Counterparties (CCPs) and Trade Repositories (TRs)<sup>266</sup>.

Consequently, there have been progressive regulatory reforms following the guidance of the G20 and IOSCO. On the one hand, in the United States the on-going reforms to OTC derivatives market are part of the Dodd-Frank Wall Street Reform and Consumer Protection Act 2010, which established a comprehensive framework for regulating the OTC swaps markets<sup>267</sup>.

In particular, the Act provides that the SEC will regulate "security-based swaps," the CFTC will regulate "swaps," and the CFTC and the SEC will jointly regulate "mixed swaps"<sup>268</sup>. Title VII of the Dodd-Frank Act requires that both

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<sup>262</sup> IOSCO, 'Mitigating Systemic Risk: A Role for Securities Regulators' (2011) IOSCO Discussion Paper OR01/11 February.

<sup>263</sup> *ibid.*

<sup>264</sup> IOSCO, IOSCO forms Task Force on OTC Derivatives Regulation (2010) Press Release, IOSCO/MR/11/2010 <https://www.iosco.org/news/pdf/IOSCONEWS191.pdf> accessed 18<sup>th</sup> January 2016.

<sup>265</sup> IOSCO, *International Standards for Derivatives Market Intermediary Regulation, Final Report Technical Committee* (2012) IOSCO, FR03/12 June <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD381.pdf> accessed 18<sup>th</sup> January 2016; *See* IOSCO, 'Review of Implementation Progress in Regulation of Derivative Market Intermediaries' (2015) IOSCO, FR15/2015 July <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD497.pdf> accessed 18<sup>th</sup> January 2016.

<sup>266</sup> CPSS-IOSCO Pfmi

<sup>267</sup> Arthur E. Wilmarth Jr., 'Dodd-Frank Act: A Flodded and Inadequate Response to the Too Big To Fail Problem' (2011) 89 Or. L. Rev. 3, 952.

<sup>268</sup> Arthur E. Wilmarth, Jr., 'Reforming Financial Regulation to Address the Too-Big-to-Fail Problem' (2010) 35 Brook. J. Int'l L. 707.



the SEC and CFTC, in consultation with the Board of Governors of the Federal Reserve System, shall jointly further define the terms “swap,” “security-based swap,” and “security-based swap agreement”<sup>269</sup>. Title VII further provides that the SEC and CFTC shall jointly establish such regulations regarding “mixed swaps”<sup>270</sup>, as may be necessary to carry out the purposes of swap and security-based swap regulation under Title VII<sup>271</sup>. In addition, Title VII requires the SEC and CFTC to jointly adopt rules governing the way in which books and records must be kept for security-based swap agreements<sup>272</sup>.

On the other hand, the reaction of regulators in the European Union<sup>273</sup> was initially focused on increasing transparency and reducing credit risk and operational risk through the use of post-trading market infrastructure.<sup>274</sup> The OTC derivatives regulatory reform includes three instruments: the European Market Infrastructure Regulation (EMIR)<sup>275</sup>, the Capital Requirements Directive IV (CRD IV) and the Markets and Financial Instruments Directive I and II (MiFID I and II)<sup>276</sup>. The European Market Infrastructure Regulation (EMIR)

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<sup>269</sup> Charles L. Hauchi, ‘Dodd-Frank’s Swap Clearing Requirements and Systemic Risk’ (2013) 30 Yale J. on Reg. 1 winter 279; See David Skeel, *The New Financial Deal: Understanding the Dodd-Frank Act and Its Unintended Consequences* (John Wiley & Sons, 2010).

<sup>270</sup> See Kroszner and R Shiller, *Reforming U.S. Financial Markets: Reflections Before and Beyond Dodd- Frank* (The MIT Press, 2011).

<sup>271</sup> Willa E. Gibson, ‘Clearing and Trade Execution Requirements for OTC Derivatives Swaps Under The Frank-Dodd Wall Street Reform and Consumer Protection Act’ (2011) 38 Rutgers L. Rec 227, 229 [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1710822](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1710822) accessed 18<sup>th</sup> January 2016.

<sup>272</sup> Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010).

<sup>273</sup> Gerry G. Kounadis, ‘European Market Infrastructure Regulation and central clearing: a conceptual, legal and compliance perspective’ (2014) 29 J.I.B.L.R. 9, 560.

<sup>274</sup> European Commission, ‘Impact Assessment’. Accompanying Document to the Proposal for a Regulation of the European Parliament and of the Council on OTC Derivatives, central counterparties and trade repositories’ [COM (2010) 484] [SEC (2010) 1059] [http://ec.europa.eu/internal\\_market/financial-markets/docs/derivatives/20100915\\_impact\\_assessment\\_en.pdf](http://ec.europa.eu/internal_market/financial-markets/docs/derivatives/20100915_impact_assessment_en.pdf) accessed 8<sup>th</sup> May 2013.

<sup>275</sup> K. M. Löber, ‘The Developing EU Legal Framework for Clearing and Settlement of Financial Instruments’ (ECB Legal Working Paper Series No.1 2006) 6

<sup>276</sup> Directive on markets in financial instruments repealing Directive [2004/39/EC] of the European Parliament and of the Council, and for the Regulation of markets in financial instruments and amending Regulation [EMIR] on OTC derivatives, central counterparties and trade repositories. [http://ec.europa.eu/internal\\_market/securities/isd/mifid/index\\_en.htm](http://ec.europa.eu/internal_market/securities/isd/mifid/index_en.htm) accessed 26<sup>th</sup> June 2013.

governs Central Counterparties and Trade Repositories<sup>277</sup>; the Capital Requirements Directive includes some rules for OTC centrally cleared derivatives; and the Market and Financial Instruments Directive (MiFID) rules exchange-trade derivatives requirements and standardisation<sup>278</sup>.

The Markets and Financial Instruments Directive (MiFID) sets out which investment services and activities should be licensed across the EU and the organisational and conduct standards that those providing such services should comply with<sup>279</sup>. In 2011, the European Commission published legislative proposals to amend MiFID by recasting it as a new Directive MiFID II and a new Regulation (MiFIR)<sup>280</sup>. After a long political debate, the final texts were published on 12<sup>th</sup> June 2014 and entered into force 20 days later on 2<sup>nd</sup> July 2014. Entry into application will follow 30 months after entry into force on 3<sup>rd</sup> January 2017.

MiFIR complements EMIR<sup>281</sup> in the sense that it implements the G20 commitment to mandate the trading of standardised derivatives on exchanges and electronic platforms by requiring certain derivatives to be traded on a RM, MTF or OTF or certain trading venues in third countries that have been considered equivalent for that purpose and reciprocate by recognising EU trading venues<sup>282</sup>.

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<sup>277</sup> On 4<sup>th</sup> July 2012 the Regulation on OTC Derivatives, Central Counterparties and Trade Repositories known as "EMIR" - European Market Infrastructure Regulation was adopted, and entered into force on 16<sup>th</sup> August 2012.

<sup>278</sup> Directive of the European Parliament and of the Council of 21<sup>st</sup> April 2004 on markets in financial instruments [2004/39/EC] amending Council Directives [85/611/EEC] and [93/6/EEC] and Directive [2000/12/EC] of the European Parliament and of the Council and repealing Council Directive [93/22/EEC].

<sup>279</sup> Alix Prentice, 'Legislative Comment: The Markets in Financial Instruments Directive' (2012) 18 Int. T.L.R. 1, 11.

<sup>280</sup> Peter Snowden and Simon Lovegrove, 'MIFID II' (2013) C.O.B.105Apr, 1-29.

<sup>281</sup> G Ferrarini and F Recine, 'The MiFID and Internalization' in G Ferrarini and E Wymeersch (eds), *Investor Protection in Europe* (OUP 2006) 235; See N Moloney, *EC Securities Regulation* (2 ed, OUP 2008) 769-778.

<sup>282</sup> Ferrarini, Guido A. and Saguato, Paolo, 'Reforming Securities and Derivatives Trading in the EU: From EMIR to MIFIR' (2014) 13 JCLS 2 January, 319 <http://ssrn.com/abstract=2386290> accessed 18<sup>th</sup> January 2016

The obligation applies to financial and non-financial counterparties that are subject to the clearing obligation in EMIR<sup>283</sup>, as well as third country entities that would be subject to it if they were established in the EU and either trade with in-scope EU entities or other third country entities where their transactions could have a direct, substantial and foreseeable effect within the EU, or it is appropriate to prevent evasion of MiFIR.

In the United Kingdom, the response to the GFC started with the Government's commitment to introduce a new approach to financial regulation, 'one which is based on clarity of focus and responsibility, and which places the judgement of expert supervisors at the heart of the regulation'<sup>284</sup>. The changes in financial architecture impose responsibility for financial stability on the Bank of England (BoE) and its Financial Policy Committee (FPC)<sup>285</sup>, and for prudential regulation on the Prudential Regulation Authority (PRA)<sup>286</sup>. Thus, responsibility for business conduct and market regulation is placed on the new Financial Conduct Authority (FCA)<sup>287</sup>.

These changes mean that supervision actions will be split between the authorities carrying on the conduct of business and those related to the prudential supervision. The risk of implementing multiple supervisors is the duplication of sanctions; therefore, the attention is on the effective coordination among supervisors<sup>288</sup>. The aim is to avoid incompatibilities and to minimise duplication in the exercise of supervision powers; the BoE and the FCA<sup>289</sup> will consult and

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<sup>283</sup> N Moloney, 'EU Financial Market Regulation After the Global Financial Crisis: 'More Europe' or More Risks?' (2010) 47 CML Rev.1317.

<sup>284</sup> *ibid.*

<sup>285</sup> Financial Services Act 2012 (FSA 2012) pt 1 A Financial Stability s. 9C Objectives of the Financial Policy Committee.

<sup>286</sup> FSA 2012 pt1 A The Regulators ch 2.

<sup>287</sup> Financial Services and Markets Act 2000 (FSMA 2000) as amended by the FSA 2012 pt 1 A The Regulators ch 1.

<sup>288</sup> It is widely accepted by the G20 governments, including the UK Treasury, that a key contributing cause of the Credit Crisis of 2007-09 was the failure of national regulators to respond, in coordination with other national regulators, not only to the excessive risks being taken by some individual firms, but to the problems of global system-wide risk. *See* HM Treasury, *Reforming Financial Markets*, para. 3.1.

<sup>289</sup> FSMA 2000 pt XI.

exchange information, ‘while recognising that each has distinct objectives and may therefore reach different conclusions’<sup>290</sup>.

In the United Kingdom, the rules of cooperation among financial system supervisors are set out in a Memorandum of Understanding (MoU) between the Bank of England, the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA). The MoU provides a ‘high-level framework that the FCA and the BoE, and where appropriate the PRA, will use to cooperate with one another in relation to the supervision of markets and market infrastructure’<sup>291</sup>.

The regime applicable to Central Counterparties has some special features. In general, the regulation of Central Counterparties was expressly assigned to the Bank of England (BoE).<sup>292</sup> However, the Financial Conduct Authority (FCA) regulates the conduct of participants in relation to the financial instruments and derivatives contracts traded on OTC derivatives markets<sup>293</sup>. Consequently, both authorities - BoE and FCA - carry out the regulation and supervision of Central Counterparties (CCPs). In the following chapters, this research critically analyses how the Bank of England has carried out the prudential supervision in the first three years of the regime, and the limited role of the FCA as the conduct regulator of CCPs.

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<sup>290</sup> Memorandum of Understanding between the Financial Conduct Authority and the Bank of England, including the Prudential Regulation Authority <http://www.bankofengland.co.uk/financialstability/Documents/fmi/mou.pdf> accessed 9<sup>th</sup> May 2013 4 (MoU FCA-BoE-PRA).

<sup>291</sup> MoU FCA-BoE-PRA 1.

<sup>292</sup> According to the provisions of FSMA 2000 - as amended by the FSA 2012, the Uncertificated Securities Regulations 2001 and the Banking Act, the BoE is responsible ‘for the oversight of clearing, settlement and payment systems (“post trade systems”) in support of its financial stability objective’.

<sup>293</sup> The FCA ‘is responsible for regulation of organised financial markets including Recognised Investment Exchanges RIE and other trading platforms’ as well as ‘the conduct of participants in relation to the financial instruments and derivatives contracts traded both on those markets and in the OTC financial markets’. Murphy Emma, ‘Changes to the Bank of England’ Bank of England, Quarterly Bulletin Q1, 2013) 20 <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2013/qb130102.pdf> accessed 23<sup>rd</sup> April 2013.

And the PRA carries out the ‘prudential supervision of many firms that are participants of such systems’

The regulation of Central Counterparties in the United Kingdom is set out in Part XVIII of Financial Services and Markets Act 2000, and the reforms introduced by the Financial Services Act 2012, and the directly applicable European regulation, contained on EMIR. Additionally, the Bank of England undertakes the supervision following the IOSCO-CPSS Principles of Financial Market Infrastructures<sup>294</sup>.

## **2.4 Conclusion**

Financial Derivatives are contracts whose value is based or derived from the value of another underlying asset. The range of derivatives contracts include vanilla products i.e. options, futures or forwards, swaps and credit derivatives, as well as exotic or bespoke derivatives. They are traded in exchange and in OTC markets and perform several functions. The most important function is to hedge risks generated in any other type of contract. They are also used to control business risks associated with the volatility of prices, to obtain funding at a preferential rate, and to take speculative advantage. Although the risk management function predicable of derivatives seeks to reduce and reallocate rather than to create risks, this benign tool might not always operate in the way anticipated, transforming them into ‘risk-bearing’ instruments. Hence, derivatives themselves can represent various types of risks (e.g. credit, liquidity, legal and operational risks). Thus, risk, as a fundamental concept in financial derivatives, is not only managed but can also be manufactured in the market.

The role that the OTCDM played in the GFC and its market failures motivated the move towards more formal regulation and supervision. The post-GFC regulatory reforms have modified the structure and functioning of the OTCDM. After the introduction of Central Counterparties (CCPs) to the OTCDM, the traditional bilateral structure of derivatives transactions changed. As the CCP places itself in the middle of the transaction and becomes the

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<sup>294</sup> CPSS-IOSCO Pfmi.

counterparty of the two initial counterparties, there is a shift in the allocation of risks that is now transferred to the CCP. As a result, the risk of each individual transaction is mutualised across all CCP's members.

The OTCDM post-crisis regulatory reform follows the international commitment of reducing systemic risk in the financial system. The emphasis is on the need to oversee macro and micro-prudential matters in markets that, as the OTCDM, were compromised during the crisis. In particular, the case of the OTCDM in the international regulatory agenda has been focused on strengthening market infrastructure by introducing Trade Repositories (TRs) and Central Counterparties (CCPs), as well as on regulating non-centrally cleared derivatives. This is in line with the G20 Pittsburgh Summit 2009 aim to improve transparency, mitigate systemic risk, and protect against market abuse.

The UK, following (the) European regulatory reform, contained in EMIR and the international standards and principles of IOSCO, adopted a new approach to regulation. Such an approach combines some elements of risk-based and judgement-based regulation. The 2013 reforms also introduced changes to the UK financial regulatory architecture. As a result, the prudential supervision of CCPs in the OTCDM was expressly assigned to the Bank of England, whilst the Financial Conduct Authority carries out the supervision of the conduct of business of CCPs. The critical analysis of the UK regime of CCPs in the OTCDM and its 'fractures' are in the following chapters.

### **Chapter 3**

#### **Fractures of the UK regime of CCPs in the OTC Derivatives Market**

##### **3.1 Introduction**

This chapter is devoted to exploring the approach and the first of the shortcomings of the UK regime of Central Counterparties (CCPs) in the OTC Derivatives Market (OTCDM), that this research calls ‘fractures’. The research uses the risk-based regulation approach to assess the regime. This will provide a structure to the chapter following the two main pillars of prudential supervision and conduct of business. Taken into account the parameters studied in the first chapter of this thesis, this part of the research identifies that the UK regime of CCPs in the OTCDM is affected by two drawbacks of risk based-regimes, namely: the absence of an organisational culture in implementing risk-based regulation; and the use of risk-based regulation is creating “manufactured risks”. In adopting risk-based regulation, the UK regime of CCPs is prioritizing (the) prudential matters and at the same time is ignoring almost completely the conduct of business regulation. Such prioritization is reflected in the wrongful interpretation of the supervisory mandates of the Bank of England and the Financial Conduct Authority. The lack of clarity regarding the role of UK authorities affects the organisational implementation of the risk-based approach.

The chapter starts with a brief explanation of the rationale behind the adoption of the CCPs in the OTCDM. It then presents an overview of the UK regime of CCPs in the OTCDM and the Bank of England’s approach to the supervision of CCPs. The purpose of these first two sections is to address the questions regarding the motivations to implementing CCPs in the OTCDM and to identify the BoE’s regulatory priorities in the first years of implementation of the regime. The third section explains the first fracture of the UK regime of CCPs in the OTCDM, which is the inexistence of a conduct of business regime. It questions the limited role that the current conduct of business rules have in the UK regime of CCPs, and how it needs to be further developed. In explaining the fracture, the chapter addresses several questions. It firstly approaches the concern regarding the role that the FCA should have as the conduct regulator of CCPs. It

then argues the importance of having a conduct of business regime for CCPs in the OTCDM. Finally, it highlights the elements that such a regime should have.

### **3.2 Rationale of the CCPs in the OTCDM**

The OTC derivatives market had traditionally been a self-regulated market of bilateral and non-standardised contracts and transactions privately negotiated between the parties involved. However, after the Global Financial Crisis regulators decided to intervene in the market through more comprehensive regulation, along with a more intrusive approach to supervision. The regulatory focus was to provide a better counterparty risk management through the adoption of new financial market infrastructures (FMIs): Central Counterparties (CCPs) and Trade Repositories (TRs).

Central Counterparties are the not-so-novel<sup>1</sup> solution financial regulators adopted after the Global Financial Crisis to solve some failures of the OTC derivatives market<sup>2</sup>. The reasons that such a reaction came about, as were argued by the G20 in 2009 and were continuously restated in subsequent submits, are to increase transparency in the market, promote the standardisation of OTC derivatives products, and to promote tools of better risk management<sup>3</sup>.

Trade repositories (TRs) will collect all the relevant information regarding trades, dealers, and investors with the aim to provide better access to relevant information<sup>4</sup>. Access to information is an efficient tool to enhance

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<sup>1</sup> 'CCPs were initially used in derivatives exchanges, due to the significant benefits they confer to their members and the financial markets they clear for' Christian Chamorro-Courtland, 'The Trillion Dollar Question: Can a Central Bank Bail-Out a Central Counterparty (CCP) Clearing

<sup>2</sup> Paul Tucker, 'Central Counterparties in Evolving Capital Markets: Safety, Recovery and Resolution' (Banque du France, Financial Stability Review N 17, April 2013).

<sup>3</sup> Robert Steigerwald, 'Chapter 7: Central Counterparty Clearing and Systemic Risk Regulation' (2014) Federal Reserve Bank of Chicago, Revised draft: 05/16/2014.

<sup>4</sup> Darell Duffie, Ada Li, and Theodore Lubke, 'Policy Perspectives on OTC Derivatives Market Infrastructure' (March 2010) FRB of New York Staff Report No. 424. <http://ssrn.com/abstract=1534729> accessed 3<sup>rd</sup> October 2015.



transparency<sup>5</sup> in the OTCDM. However, the TRs regime and concerns about the efficiency of such systems are beyond the scope of this research.

Financial market infrastructures lie at the heart of the financial system<sup>6</sup> and improve market resilience in times of stress<sup>7</sup>. In particular, Central Counterparties CCPs locate themselves as crucial nodes in the financial system, hence their systemic importance in terms of managing, reducing and allocating the inherent risks arising from transactions between market participants<sup>8</sup>. In carrying out their typical functions, CCPs run a ‘matched book’. This means that, ‘any position taken on with one counterparty is always offset by an opposite position taken with a second counterparty’<sup>9</sup>. Although the CCPs do not take on market risk in their normal course of business, they are exposed to the risk that a counterparty defaults. In such a case, the CCP would be subject to market risk<sup>10</sup>.

As noted, the main reason for introducing CCPs to the OTCDM is to provide a better management of counterparty credit risk, particularly in markets such the OTC derivatives, where the losses are severe enough to become a channel of contagion and be the potential source of systemic risk<sup>11</sup>. CCPs are used to reduce and mutualise the counterparty credit risk in the markets in which they operate<sup>12</sup>. CCPs reduce counterparty credit risk through multilateral netting - that is, ‘offsetting an amount due from a member on one transaction against an

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<sup>5</sup> Colleen Baker, ‘Regulating the Invisible: The Case of Over-the-Counter Derivatives’ (2009-2010) 5 Notre Dame L. Rev. 1287.

<sup>6</sup> Amandeep Rehlon and Dan Nixon, ‘Central Counterparties: What are they, why do they matter and how does the bank supervise them?’ (Bank of England, Quarterly Bulletin, Q2 2013).

<sup>7</sup> Jacques Aigrain, ‘CCPs as instruments of stability and risk mitigation’ in OTC derivatives: New Rules, New Actors, New Risks’. Banque du France- Financial Stability Review (n 3).

<sup>8</sup> Chande, Nikil, Nicholas Labelle and Eric Tuer, ‘Central Counterparties and Systemic Risk’, Bank of Canada financial system review’ (December, 2010).

<sup>9</sup> Rehlon and Nixon, Central Counterparties: What are they, why do they matter and how does the bank supervise them? (n 7).

<sup>10</sup> BIS, ‘Recovery of Financial Market Infrastructures’ (CPMI-IOSCO October 2014).

<sup>11</sup> ‘The recent financial crisis served as a reminder of the impact an impaired financial system can have on the economy at large. In the early stages of the crisis in 2007-2009, a lack of transparency over large bilateral positions between counterparties, combined with potentially insufficient collateral, had the effect of exacerbating other problems, such as the significant reduction in market liquidity’. *ibid.*

<sup>12</sup> John Gregory, *Central Counterparties: Mandatory Clearing and Bilateral Margin Requirements for OTC Derivatives* (Wiley Finance Series, 2014) 4.

amount owed to that member on another, to reach a single, smaller net exposure<sup>13</sup>.

Equally important to the functioning of CCPs is the orderly management of a member's default and of any other source of losses. To that end, CCPs count with loss allocation rules and mechanisms to act in the event of a member's default. Some of these mechanisms include an auction of the defaulter's positions and more commonly the use of CCPs' default waterfall. Although there is no standard 'default waterfall'<sup>14</sup>, the mechanism usually involves: defaulting member's initial margin and default fund contribution, part of CCP's equity, a surviving member's default fund contributions, rights of assessment, and CCP's margin equity<sup>15</sup>. The aim of having these mechanisms in place is to avoid the failure of the CCP and its systemic implications. However, CCPs should also have a special resolution regime to be enforced when the recovery measures have been exhausted. In such an event, the priority of supervisors will be ensuring the continuity of the clearing services.

There are notable advantages and limits posed by the use of Central Counterparties CCPs<sup>16</sup>. The detailed consideration of the benefits and limits of the use of CCPs in the OTCDM is beyond the scope of this research. However, it is important to give a look at the advantages and limits CCPs have. The most prominent benefits that CCPs bring to the OTCDM include the discipline of an independent valuation of market positions, rigorous full collateralization, and clear default rules and procedures<sup>17</sup>. CCPs are said to increase market safety and integrity by mitigating and managing counterparty credit risk, mitigating

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<sup>13</sup> Rehlton and Nixon, Central Counterparties: What are they, why do they matter and how does the bank supervise them? (n 7).

<sup>14</sup> ISDA, 'CCP Default Management, Recovery and Continuity: A Proposed Recovery Framework' (January, 2015).

<sup>15</sup> Craig Pirrong, 'The Economics of Central Clearing: Theory and Practice', (ISDA Discussion Papers Series, May 2011).

<sup>16</sup> An important study of the legal nature of clearing in the US during the 1987 stock market crash. Ben. S. Bernanke, 'Clearing and Settlement during the Crash' (1990) Princeton University 3 The Review of Financial Studies 1, 133.

<sup>17</sup> Aigrain, 'CCPs as instruments of stability and risk mitigation' in OTC derivatives: New Rules, New Actors, New Risks' (n 8).

liquidity and operational risks, addressing information asymmetries and reducing complexity and increasing efficiency<sup>18</sup>. Such benefits are achieved when CCPs feature strong regulatory regimes, high standards of governance and risk management<sup>19</sup>. However, the shape of the regulation varies in each jurisdiction and the effectiveness of the regulation in achieving these outcomes depends heavily on the availability of market infrastructure and the use that market participants make of that infrastructure<sup>20</sup>.

Nonetheless, the adoption of CCPs in the OTC derivatives is not free of shortcomings. Pirrong, one of the strongest critics of CCPs, argues that, in the aftermath of the GFC, central clearing was wrongfully considered a panacea that would prevent future panics and ensure financial stability<sup>21</sup>. He argues that there is considerable room for scepticism about the excessive hope put into the CCPs' role. On the one hand, CCPs are highly interconnected<sup>22</sup> intermediaries and the consequences of its failure might prompt negative externalities<sup>23</sup>. The establishment of a CCP creates the risk of contagion<sup>24</sup> of shocks<sup>25</sup> and losses that may occur as a result of two events - the CCP's actions to survive following the default of a clearing member or a CCP's eventual default. Moreover, CCPs in the OTCDM are characterized by a lack of substitutability<sup>26</sup>; as the market is highly concentrated, they are too difficult to substitute in case that one of them ceases to provide services.

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<sup>18</sup> Marcus Zickwolff, 'The Role of Central Counterparties in Financial Crisis Recovery' (World Federation of Exchanges, 2010) <http://www.world-exchanges.org/insight/views/role-central-counterparties-financial-crisis-recovery> accessed 5<sup>th</sup> October 2015.

<sup>19</sup> HM Treasury, 'Financial Reform: A Framework For Financial Stability (Group of Thirty) and a new approach to financial regulation: an analysis' (Nov,1 2010).

<sup>20</sup> FSB, '*OTC Derivatives Market Reforms Eighth Progress Report on Implementation*' (7 November 2014).

<sup>21</sup> Craig Pirrong, 'The Inefficiency of Clearing Mandates'. Policy Analysis. CATO Institute July 2010.

<sup>22</sup> David Murphy, Michalis Vasios, and Nick Vause, 'An Investigation into the Procyclicality of Risk-Based Initial Margin Models' (Bank of England Financial Stability Paper No. 29, May 2014).

<sup>23</sup> IMF, 'Central Counterparties: Addressing their Too Important to Fail Nature' (IMF, Working Paper, January 2015).

<sup>24</sup> CCPs actions may have 'procyclical' effects by exacerbating other stresses in the financial system.

<sup>25</sup> Li Lin and Jay Surti, 'Capital Requirements for Over-The-Counter Derivatives Central Counterparties' (IMF, WP/13/3 January, 2013).

<sup>26</sup> IMF, 'Central Counterparties: Addressing their Too Important to Fail Nature' ( n 24).

These concerns explain the content of the post-GFC regulatory reforms that moved towards enhancing central clearing for OTC derivatives, but more importantly, are designed to ensure the safety and soundness of CCPs. As has been discussed in this research, the UK regime - in line with the international regulatory reform - is heavily seated in the prudential supervision of CCPs. The priority is to ensure the safety and soundness of CCPs, with the expectation that it will result in stability for the OTCDM.

The introduction of mandatory clearing also brings some benefits in terms of supervision of the OTCDM. From regulators' perspective, one of the benefits of CCPs is that they contribute to enhancing standardisation. When the G20 leaders agreed on the need to improve standardisation of OTC derivatives transactions, the working group of the Financial Stability Board was engaged with the task to translate the G20 commitments into standards and implementing regulation. The aim of standardisation was to achieve consistency in implementation across jurisdictions, to promote greater use of OTC derivatives products in standardised form, and to minimize potential regulatory arbitrage. Hence, the report of the Financial Stability Board of October 2010<sup>27</sup> set out recommendations for authorities to work with market participants to increase standardisation, including the introduction of incentives and, where appropriate, regulation.

These recommendations and the work of the OTC Derivatives Supervisors Group - ODSG - help to explain how standardisation contributes to regulators' work. The ODSG on 31<sup>st</sup> March 2011<sup>28</sup> took the commitment to achieve the benefits of standardisation<sup>29</sup> by providing supervisors with on-going

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<sup>27</sup> FSB, 'Implementing OTC Derivatives Market Reforms' (25 October 2010).

<sup>28</sup> 'This is the Roadmap of the G14 members to Initiatives and Commitments regarding Central Counterparties, Infrastructure providers and global supervisors to continue to make structural improvements to the global OTC derivatives markets' <http://www.newyorkfed.org/newsevents/news/markets/2011/SCL0331.pdf> accessed 25<sup>th</sup> may 2013.

<sup>29</sup> Some of the benefits of standardised derivatives are: '1) Increasing suitability for central clearing and organised platform trading; 2) Facilitating automated processing transactions; 3) Increasing the fungibility of the contracts which enables greater market liquidity; 3) Improving valuation and risk management; 4) Increasing the reliability of information; 5) Reducing the

qualitative and quantitative indicators to inform supervisory and regulatory priorities. One of the objectives of standardisation is to develop the foundation for implementing market reforms, allowing more automated processing, expanded central clearing and enhanced transparency.

The aim of standardisation is materialised in three initiatives that clarify the objective of the standardisation mechanism. Firstly, to develop an on-going analysis for the purposes of benchmarking the level of standardisation in each asset class related to derivatives (Credit, interest rates, equities, commodities).<sup>30</sup> Secondly, the product standardisation, including the development publication and take up of standardised product documentation<sup>31</sup>. This second initiative requires explaining the role of ISDA issuing standard documentation used on OTC derivatives transaction. Thirdly, the process standardisation<sup>32</sup>, to continuing the work with Central Counterparties CCPs, Trade Repositories TRs and other infrastructure providers to standardise processes in each asset class.

Besides the advantages of standardisation, CCPs also have an active role in increasing transparency of the OTCDM. The problem before the GFC was that the bilateral structure of OTC derivatives transactions impeded the adequate monitoring of exposures and the assessment of potential risks for financial stability<sup>33</sup>. Hence, the regulatory response was to introduce several mechanisms to increase the transparency of the market - one route is the use of CCPs. The justification is that CCPs maintain transaction records, including notional amounts and counterparty identities<sup>34</sup>. A CCP contributes to transparency because it provides the centralised administration of long and short positions of

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number of problems in matching trades; 5) Facilitating reporting to Trade Repositories.' FSB, 'Implementing OTC Derivatives Market Reforms' (n 28).

<sup>30</sup> *ibid.*

<sup>31</sup> Legal Standardisation is the use of common legal documentation, including master netting agreements, definitions, confirmations, etc. *ibid.*

<sup>32</sup> Operational Standardisation seeks to manage all product trade cycle in common terms, and it is beneficial to central clearing systems. *ibid.*

<sup>33</sup> Daniela Russo, 'OTC Derivatives: Financial Stability Challenges and Responses from Authorities' (Banque du France, Financial Stability Review N 14- Derivatives Financial Innovation and Stability July, 2010).

<sup>34</sup> IMF, 'Making OTC Derivatives Safer: The Role of Central Counterparties (FMI, Global Financial Stability Report, April, 2010).

clearing members<sup>35</sup>. However, the role of CCPs needs to be complemented with other mechanisms<sup>36</sup>.

As the CCPs are assuming a position of special importance in each transaction and in the market more generally, they fall in the category of Systemically Important Financial Institutions (SIFIs)<sup>37</sup>. The systemic importance of CCPs and the undesirable consequences of their failure have inspired the content of the regulatory reform. Regulators have been particularly devoted to ensure, to the best of their capacity, that the CCPs will provide the clearing services<sup>38</sup> with no interruption or disturbance, even if the CCPs are facing financial distress. Hence, the regulatory reform includes loss allocation and recovery rules to be adopted by the CCPs, and it is expected to develop a special resolution regime in the near future.

### **3.3 UK Regime of CCPs in the OTCDM**

This section addresses the questions concerning the role of the UK regulators of CCPs in the OTCDM. The explanation of the regulatory architecture gives the grounds to discuss the role that the Bank of England (BoE) and the Financial Conduct Authority (FCA) should have when conducting the prudential supervision and conduct of business supervision of CCPs. Since the purpose of this research is to critically assess the UK regime of CCPs and not to describe in detail its content, this chapter only explores the most relevant provisions regarding UK regulation and the relevant provisions of EMIR.

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<sup>35</sup> IMF, 'Central Counterparties: Addressing their Too Important to Fail Nature' (n 24).

<sup>36</sup> 'Alongside the regulation of Trade Repositories, there are developments on the use of open standards – such as legal entity identifiers (LEIs), unique trade identifiers (UTIs), unique product identifiers (UPIs) and existing messaging standards (e.g. FpML, ISO, FIX) – to drive improved quality and consistency in meeting reporting requirements: Unique global identifiers for legal entities conducting a trade (LEIs), for product types (UPIs) and for trades (UTIs/unique swap identifiers) have been developed'. ISDA Report <http://www2.isda.org/functional-areas/technology-infrastructure/data-and-reporting/reporting/> accessed 15<sup>th</sup> October 2014

<sup>37</sup> George Walker, 'Systematically Important Institutions Too Big To Fail' (2012) (Financial Regulation International October 26, 2012) "Besides the category of Too Big To Fail Walker identifies that CCPs are mechanisms that help to manage the 'Too-Big-to-Separate' institutions".

<sup>38</sup> As of November 2014, five jurisdictions report having some central clearing requirements in effect; this is expected to increase to 10 jurisdictions by end-2015. By that time, another five expect to have some central clearing requirements adopted but not yet effective, or to be in the process of consulting on or proposing such requirements' FSB, 'OTC Derivatives Market Reforms Eighth Progress Report on Implementation' (7 November 2014).

Finally, the section highlights the areas of supervision that the UK regime prioritizes. This explanation is necessary to understand the findings of this research, which are the ‘fractures’ of the UK regime of CCPs in the OTCDM.

### 3.3.1 Regulatory Architecture

The reform of the Financial Regulation and Supervision Regime in the UK started by proposing the introduction of a new approach to financial regulation - one which is based on clarity of focus and responsibility, and which places the judgement of expert supervisors at the centre of regulation. Hence, the responsibility for financial stability rests in the Bank of England (BoE)<sup>39</sup> and its Financial Policy Committee (FPC), and the Prudential Regulation Authority (PRA) oversees the prudential matters. Moreover, responsibility for conduct of business will still sit with the new Financial Conduct Authority (FCA). As part of this approach, regulators are empowered to look beyond compliance and to supervise proactively. To introduce these reforms, the government amended the Financial Services Market Act 2000. The most recent reform is proposed in the Bank of England and Financial Services Bill 2015-2016; it attributes the functions of the PRA to the BoE. Such functions are to be exercised by the Bank acting through its Prudential Regulation Committee<sup>40</sup>. Regarding the Central Counterparties, this research argues that the competent authorities are the Bank of England and the Financial Conduct Authority<sup>41</sup>.

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<sup>39</sup> Highlighting the differences in the BoE mandates before and after the GFC. Graham Nicholson and Michael Salib, ‘The regulatory powers and purview of the Bank of England: pre- and post-crisis’ (2013) 10 JIBFL 636.

<sup>40</sup> The Bank of England and Financial Services Bill 2015-2016 is under discussion in the House of Lords. [http://www.publications.parliament.uk/pa/bills/lbill/2015-2016/0065/lbill\\_2015-20160065\\_en\\_3.htm#pt1-pb3-l1g12](http://www.publications.parliament.uk/pa/bills/lbill/2015-2016/0065/lbill_2015-20160065_en_3.htm#pt1-pb3-l1g12) accessed 21<sup>st</sup> October 2015.

<sup>41</sup> ‘Systematically important firm’ is a term used to cover financial institutions that could be systematically critical if they fail, including investment firms, Financial Market Infrastructures and insurers’ FSB, *Resolution of Systematically Important Financial Institutions: Progress Report* (November 2012).

### 3.3.2 UK Statutory Regime and European Regulation (EMIR)

The Financial Services and Markets Act 2000 (FSMA) part XVIII regulates Central Counterparties CCPs, entities subject to the recognition requirements as Recognised Clearing Houses (RCH). However, the legal obligations to be satisfied are defined in large part by European Law. For the purpose of this research, the focus is on the regulation of CCPs contained in the European Regulation on OTC derivatives, Central Counterparties and Trade Repositories, commonly known as European Market Infrastructure Regulation (EMIR)<sup>42</sup>. A systematic interpretation of both bodies of regulation aims to ensure that Part XVIII regime can be more efficient and responsive to the more complex and challenging environment, which both CCPs and regulators now face<sup>43</sup>.

The main obligations under EMIR include central clearing obligation<sup>44</sup> through a CCP for certain classes of OTC derivatives; application of risk mitigation techniques for non-centrally cleared OTC derivatives<sup>45</sup>; reporting obligation on all OTC derivatives to Trade Repositories<sup>46</sup>; *application of organisational, conduct of business and prudential requirements for CCPs*; and application of requirements for Trade Repositories, including the duty to make certain data available to the public and relevant authorities. This research is focused on analysing the provisions in EMIR related to Central Counterparties CCPs, the prudential regulation, conduct of business and organisational requirements.

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<sup>42</sup> On 4 July 2012 the Regulation on OTC Derivatives, Central Counterparties and Trade Repositories known as "EMIR" - European Market Infrastructure Regulation<sup>42</sup> was adopted, and entered into force on 16 August 2012.

<sup>43</sup> HM Treasury-FCA (2011b), 'A New Approach to Financial Regulation: The Blueprint for Reform' CM8083 (June 2011) 20 (Hereinafter HM Treasury-FCA (2011b), 'A New Approach to Financial Regulation: The Blueprint for Reform').

<sup>44</sup> Art 4 EMIR.

<sup>45</sup> Art 11 EMIR.

<sup>46</sup> Art 9 EMIR.



Central Counterparties CCPs must be recognised<sup>47</sup> and authorised<sup>48</sup> by the national competent authority<sup>49</sup> - the Bank of England<sup>50</sup> in the UK within the EMIR transitional period. The period to decide if the application is complete is 30 working days<sup>51</sup>, and ‘once complete, a further four months to make a recommendation for authorisation to a supervisory college’<sup>52</sup>. Additionally, CCPs must comply with the UK requirements on monitoring and mitigating financial crime and market abuse<sup>53</sup>.

Section 286 of FSMA also makes clear<sup>54</sup> that any applicant for recognition must comply with all the requirements established by the MiFID<sup>55</sup>,

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<sup>47</sup> For the Clearing Houses, the recognition requirements are set out on FSMA 2000 Part III and IV of the Schedule. Section 286 establishes the process of Qualification for Recognition; Section 288 Application by a clearing house. (1) Any corporate body or unincorporated association which is established in the UK may, where it intends to provide clearing services as a central counterparty, apply to the Bank of England in accordance with Article 17 of EMIR regulation for an order granting authorisation for the purposes of that article and declaring it to be recognised central counterparty for the purposes of this Act(...); The Regulation on Recognition orders are contained in Section 290 of the FSMA 2000. As mentioned before, when the application complies with all the requirements of Section 288 (1) and the Article 17 of the EMIR regulation, the regulator may make a central counterparty recognition order or, where the application is made under Section 288 (1A), make a recognition order declaring the applicant to a recognised clearing house which is not a recognised central counterparty, when that’s the case.

<sup>48</sup> EMIR Title III AUTHORISATION AND SUPERVISION OF CCPs. (Hereinafter EMIR Title III. A & S of CCPs) Chapter 1 Conditions and procedures for the authorisation of a CCP.

<sup>49</sup> EMIR Article 2 Definitions defines (13) "competent authority" means the competent authority referred to in the legislation referred to in point (8) of this Article, the competent authority referred to in Article 10(5) or the authority designated by each Member State in accordance with Article 22.

<sup>50</sup> Bank of England, ‘The Bank of England’s approach to the supervision of financial market infrastructures (April 2013) 5 (Hereinafter BoE’s approach to FMIs’ Supervision, 2013).

<sup>51</sup> EMIR Title III. A & S of CCPs. Chapter 1. Article 17 Procedure for granting and refusing authorisation.

<sup>52</sup> EMIR Title III. A & S of CCPs. Chapter 1. Article 18. College 2.

<sup>53</sup> The Financial Services and Markets Act FSMA 2000 (Over the Counter Derivatives, Central Counterparties and Trade Repositories) Regulations 2013. PART 4 Amendments to the Financial Services and Markets Act 2000 (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulations 2001 (...) (6).

<sup>54</sup> FSMA 2000 Part XVIII Recognised Investment Exchanges and Clearing Houses. (Hereinafter FSMA Part XVIII) Section 286 (6) In the case of an investment exchange, requirements resulting from this section are in addition to requirements which must be satisfied by the exchange as a result of section 290(1A), before the Authority may make a recognition order declaring the exchange to be a recognised investment exchange’.

<sup>55</sup> Commission adopts proposals for a Directive on markets in financial instruments repealing Directive 2004/39/EC of the European Parliament and of the Council, and for a Regulation on markets in financial instruments and amending Regulation [EMIR] on OTC derivatives, central counterparties and trade repositories.

as prescribed by Section 290 (1A)<sup>56</sup>. The relevant provisions of MiFID I impose the pre-trade transparency requirements; Article 29 establishes the general obligation to make current bid or other prices and the depth of trading interest at these prices public, which are then advertised through their systems in respect of shares admitted to trading on a regulated market. This obligation is further developed in Article 44 of MiFID I, where the competent authorities in each Member State are allowed to waive the obligation to make the information public attending to market size reasons, as well as the adopted market model. Similarly, Article 30 considers the deferred publication of the transactions based on their type and size.

Additionally, it is first important to clarify that the Financial Conduct Authority (FCA) has, as part of its handbook, a sourcebook for Recognised Investment Exchanges (RIEs)<sup>57</sup>. These rules and guidance apply to recognised bodies and to applicants for recognition as RIEs under Part XVIII of FSMA; it is Recognised Investment Exchanges and Clearing Houses<sup>58</sup>. The handbook develops the recognition requirements set out on Part XVIII FSMA 2000. At first sight it could be expected that these rules, initially designed for clearing houses providing services in the exchange market, would be at least partially applicable to the clearing houses operating in the OTCDM. However, this is not the case in practice; these rules that are enforced by the FCA are not applicable to CCPs in the OTCDM.

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<sup>56</sup> FSMA Part XVIII. Section 290 Recognition orders (...) (1A). In the case of an application for an order declaring the applicant to be a recognised investment exchange, the reference in subsection (1) to the recognition requirements applicable in its case includes a reference to requirements contained in any directly applicable Community regulation made under the markets in financial instruments directive. (...)’ See HM Treasury-FCA (2011b), ‘A New Approach to Financial Regulation: The Blueprint for Reform’.

<sup>57</sup> Financial Conduct Authority (FCA) Handbook, Recognised Investment Exchanges (REC) <http://www.fshandbook.info/FS/html/FCA/REC> accessed 6<sup>th</sup> October 2015.

<sup>58</sup> FCA Handbook. Recognised Investment Exchanges (REC) Chapter 1 1.1 Application *ibid* 2.

### 3.3.3 Prudential Supervision of CCPs

According to the top-down approach, this section starts explaining the Prudential Supervision. Prudential supervision involves ‘not only monitoring the compliance of systemically important institutions with safety and soundness<sup>59</sup> standards, but also evaluating whether these standards are sufficient to protect the rest of the economy adequately from financial distress in a systemically important firm’<sup>60</sup>. This is the macro-prudential supervision seeking to limit financial system distress, in this case focused on regulating Central Counterparties as systemically important institutions of the OTCDM.

Macro-prudential supervision can be broadly defined as the ‘oversight of the financial system as a whole’<sup>61</sup>. More specifically, it involves the ‘analysis of trends and imbalances in the financial system and the detection of systemic risks’<sup>62</sup>. This function is generally carried out by the central bank, which in the UK is the Bank of England, and the specific delegation of this function to the Financial Policy Committee. The aim is to have the overall picture of the systemic risks<sup>63</sup> and the interconnectedness between financial institutions<sup>64,65</sup>. The supervisory approach greatly relies on the information it acquires in monitoring and assessing systemic risk in financial markets. Therefore, it is

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<sup>59</sup> The basic goal of safety-and-soundness regulation is to protect “fixed-amount creditors” from losses arising from the insolvency of financial institutions owing those amounts, while ensuring stability within the financial system. Fixed-amount creditors are bank depositors, beneficiaries and claimants of insurance companies, and account holders at brokerage firms who are owed fixed amounts of money. Bert Ely, "Financial Regulation." *The Concise Encyclopedia of Economics* (2008) Library of Economics and Liberty. 27 June 2013. <http://www.econlib.org/library/Enc/FinancialRegulation.html> accessed 15<sup>th</sup> October 2015.

<sup>60</sup> Frederick S. Mishkin, ‘Prudential Supervision: Why is it important and what are the issues?’ (University of Chicago, 2000) [www.neber.org/chapters/c10756](http://www.neber.org/chapters/c10756) accessed 31 may 2013.

<sup>61</sup> Martin Wolf, ‘Seven Ways to fix the System’s Flaws’ (FT, London, 23 January 2012) <http://www.ft.com/cms/s/0/c80b0d2c-4377-11e1-8489-00144feab49a.html#axzz41Y0Y7ydi> accessed 15<sup>th</sup> October 2015

<sup>62</sup> Rosa Lastra, ‘Defining forward looking, judgement-based supervision’(2013) 14 J.B.R.3/ 4 July-Nov

<sup>63</sup> G30 Working Group on Macroprudential Policy Enhancing Financial Stability and Resilience: Macroprudential policy, tools and systems for the future (Washington DC, 2010).

<sup>64</sup> Mad Andenas and Iris H-Y Chiu, *The Foundations and Future of Financial Regulation: Governance for Responsibility* (Routledge, 2014).

<sup>65</sup> FSA, ‘The Turner Review: A Regulatory Response to the Global Banking Crisis (March 2009).

important to enforce the rules on information reporting, and exercise extensive information surveillance<sup>66</sup>. Particularly in complex and structured markets, there is a call for sufficient disclosure of relevant matters; hence supervisors do not operate under the assumption that market discipline is enough to rule those markets<sup>67</sup>. Indeed, supervisors are expected to carry out a more proactive role when conducting supervision.

In coordination with the macro-prudential supervision in April 2013, the Bank of England received the mandate to carry out the ‘micro-prudential’ supervision of Financial Market Infrastructures (FMIs),<sup>68</sup> among them CCPs. Micro-prudential supervision refers to day-to-day supervision of individual financial institutions<sup>69</sup>. The focus of micro-prudential supervision is to ensure the safety and soundness of individual institutions, which in turn contributes to achieving financial stability.

The grounds of the supervision of FMIs are closely linked to the Bank of England’s aim to preserve financial stability. Since the goal is a sound and safe financial system by ensuring institutional stability, ‘the Bank’s role as supervisor is to ensure that the infrastructures are managed in a manner consistent with public interest’<sup>70</sup>. To this end, the Bank’s aim is to ensure that FMIs’ rules and policies are designed and applied to monitor, manage and mitigate risks, especially systemic risk. Similarly, the Bank ‘seeks to ensure that sufficient priority is given to continuity of key services, without systemic disruption and without recourse to public funds’<sup>71</sup>. The supervision regime closely follows the

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<sup>66</sup> Iris H-Y Chiu, ‘Transparency Regulation in Financial Markets: Moving into the Surveillance Age?’ (2001) 3 *European Journal of Risk and Regulation* 303.

<sup>67</sup> About the insufficient disclosure and poor judgement in Collateralised Debt Obligations. See Richard E Mendales, ‘Collateralised Explosive DEVICES: Why Securities Regulation Failed to Prevent the CDO Meltdown’ (2009) *U. Ill. L. Rev.*, 1359.

<sup>68</sup> The BoE defines FMIs as ‘sets of rules, contracts, processes and operational arrangements for managing, reducing and allocating risk arising from transactions between market participants’. BoE’s approach to FMIs’ Supervision, 2013 (n 50) 3.

<sup>69</sup> Lastra, ‘Defining forward looking, judgement-based supervision’ (n 63).

<sup>70</sup> *ibid.*

<sup>71</sup> BoE’s approach to FMIs’ Supervision, 2013 (n 50) 4.

general objective set by the G20 to not create a new class of too important to fail institutions<sup>72</sup>.

Conducting the supervision of CCPs the BoE has set out some Key Supervisory Pillars, anticipating that, ‘its supervisory effort is based on its assessment of where risks to financial stability are greatest’<sup>73</sup>. Although the emphasis is on counterparty credit risk management for CCPs, in general the supervision lies on systemic risk management<sup>74</sup> through principles of: governance, management of operational risk, continuity of service and adequate rules in case of participants’ default.

The governance principle seeks that Financial Market Infrastructures (FMIs) feature governance rules and decision-making processes that reflect the purpose of the institution and are consistent with the interests of the financial system as a whole. To this end, the Bank proposes a risk assessment model<sup>75</sup>, which considers internal and external risks, the potential systemic impact and the context. Moreover, the model includes mitigating factors divided into: operational and financial mitigants, and structural mitigation and recovery and resolvability.

As a second principle, the BoE incorporates the promotion and maintenance of standards<sup>76</sup>. The rationale is to seek that FMIs impose standards and disciplines on individual participants, achieving the strengthening of FMIs’ operations. Therefore, FMIs are expected to lead industry thinking and enhance the standards used in the market. In the view of the Bank, this process includes

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<sup>72</sup> Jon Cunliffe, ‘Speech: Is the world financial system safer now?’ (Bank of England, Monday 17<sup>th</sup> march 2014).

<sup>73</sup> BoE’s approach to FMIs’ Supervision, 2013 (n 50) 7.

<sup>74</sup> *ibid.*

<sup>75</sup> BoE’s approach to FMIs’ Supervision, 2013 (n 50) 7.

<sup>76</sup> *ibid* 8.

product standardisation<sup>77</sup> that occurs alongside the improvement of ISDA documentation, as a contribution tool to the management of operational risks of the CCPs.

Further, the financial risk mitigants principle plays a central role in BoE's supervision, especially the loss absorbency rules. As announced in the introduction of this chapter, there are several ways to implement such rules. Therefore, the BoE takes a close interest in how supervised FMIs assess the adequacy of their loss-absorbing resources. The methodology of assessing risks will have to meet at least the minimum standards set out in the CPSS (now CPMI)<sup>78</sup>-IOSCO Principles, as well as EMIR<sup>79</sup>.

Additionally, the BoE supervisory approach carefully considers recovery and resolvability rules to manage the default of a participant and the potential disruption it might cause. Along with the guidance of CPMI-IOSCO and the regulation of EMIR, the BoE proposes some principles. Such principles indicate that loss-allocation rules should include comprehensive, clear, transparent and expedite methods to allocate losses. Also, contractual procedures for the tear-up of contracts should be only used as a last resort mechanism. Where a tear-up is used, it should be isolated to the affected clearing services, so that the CCPs' other services can in principle be maintained. Finally, the design of loss-allocation rules should be sensitive to the incentives that they provide to participants.

Moreover, the BoE establishes that, if recovery plans are not comprehensive and sufficient, 'the authorities are able to step in to resolve the

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<sup>77</sup> Central Clearing generally requires the use of 'mass production' processes that work best with standardized and fungible products, whereas customized contracts require specialized pricing and risk-models and one-off infrastructure solutions'. IMF, 'Making OTC Derivatives Safer: The Role of Central Counterparties' (n 35).

<sup>78</sup> The CPSS changed its name to the Committee on Payments and Market Infrastructures (CPMI) on 1 September 2014.

<sup>79</sup> BoE's approach to FMIs' Supervision, 2013 (n 50) 9.

FMI in a way that prevents or limits systemic disruption without calling on public funds'<sup>80</sup>. The Bank has the attribution to resolve a troubled CCP according to the amendments to the Banking Act 2009 done by the Financial Services Act 2012. The resolution procedure will follow the FSB's Key Attributes for Effective Resolution Regimes.

Thus, the accomplishment of the aforementioned principles in practice urges the Bank to take a comprehensive approach. With this compromise, the BoE has made clear that its supervision goes beyond assessing compliance with rules and requirements. It also includes continuous supervisory assessment and intervention, aside from active cooperation with national and overseas authorities<sup>81</sup>.

The principles reflect the supervisory priorities of the Bank in the first years of the regime. The BoE has issued two Annual Reports on the supervision of Financial Market Infrastructures to assess the progress against such principles. The reports inform how the Bank has met its financial stability objective through the supervision of recognised CCPs<sup>82</sup>. In its first year report, the Bank stressed that the UK CCPs have improved their risk management by introducing new and enhanced margin models<sup>83</sup>. Similarly, the CCPs have been working on new arrangements to allocate clearing member default losses that exceed the pre-funded resources<sup>84</sup>, consistent with the new UK recognition requirements that came into force in 2014.

The First Annual Report explains the progress against 2013 supervisory priorities. Accordingly, the judgement of the Bank is setting these priorities to highlight the areas in which a major effort is required from the FMIs in order to

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<sup>80</sup> *ibid.*

<sup>81</sup> *ibid.*

<sup>82</sup> The Bank of England's supervision of Financial Market Infrastructures. Annual Report. March 2014 (Hereinafter BoE's supervision of FMIs 1<sup>st</sup> Annual Report 2014).

<sup>83</sup> *ibid.*

<sup>84</sup> *ibid.*

reduce risks in the system. As described in the report, this judgement and assessment is based on a risk review conducted by supervisory staff and reviewed by senior bank officials. Thus, elements of the risk-based regulation, combined with judgment-based regulation, can be clearly identified in the Bank of England approach to CCPs' supervision.

Moreover, to integrate the FMIs to the process of supervision and in line with international regulatory requirements<sup>85</sup>, the Bank includes a process of 'self-assessment' that each FMI must conduct. The process requires the evaluation of compliance against the PFMI. The self-assessment is a mechanism that facilitates the cooperation between FMIs and the Bank and contributes to delivering more efficient supervision. The first assessments have already been published<sup>86</sup>.

Recognising the systemic importance of FMIs, the Bank created a new Directorate<sup>87</sup> that will conduct a more intense supervision. According to the Second Annual Report of March 2014, the new division of the Bank is exclusively dedicated to conduct the risk-based supervision of FMIs and to guide the policy development. Also, the Bank stresses that a large part of the second year of supervision was focused on enhancing loss allocation and recovery rules. The aim of the Bank in developing this part of the regime was to put in place a regime that ensures the continuous provision of critical services in the event an FMI is in financial distress.

The Annual Reports of the Bank present the progress regarding 2013 and 2014 supervisory priorities. To that end, the reports highlight developments

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<sup>85</sup> The self-assessment followed the disclosure framework and applied the assessment methodology recommended by CPMI-IOSCO.

<sup>86</sup> **LCH Clearnet Ltd.** published in June 2014, **CME Clearing Europe Ltd.** in March 2015, **LME Clear Ltd.** in June 2015, **EuroClear UK & Ireland Ltd.** in May 2015.

<sup>87</sup> The Bank of England's supervision of Financial Market Infrastructures. Annual Report. March 2015 (Hereinafter BoE's supervision of FMIs 2<sup>nd</sup> Annual Report 2015).



related to credit and liquidity risk, recovery and resolution, operational risk management, governance, disclosure and use of the Bank's powers.

### **3.3.3.1 Progress in Credit and Liquidity Risk Management**

Regarding the development of credit and liquidity risk management, the Bank restates the importance of the main function carried out by Central Counterparties CCPs, which is to take and manage counterparty credit risk<sup>88</sup>. To this end, the CCP collects margins from its clearing members, and that margin should correspond to the amount of credit risk the CCP is managing. The attention of the supervisor in the first year of the regime was focused on the margin models and stress tests. In particular, the Bank examined the key elements of CCP's margin and default fund calculation to ensure the CCP is sufficiently protected against potential member failure<sup>89</sup>.

During 2014, the Bank's concern was the assessment of Initial Margin (IM) Models. In accordance with EMIR requirements, the Bank evaluated how the models used by CCPs to calculate IM strike an adequate balance between risk-sensitivity and pro-cyclicality<sup>90</sup>. This balance ensures that if market conditions change, the CCP will have enough resources to manage losses without the need to alter IM requirements, which in turn might affect the liquidity of clearing members. Moreover, the Bank conducted the supervision to assess whether the UK CCPs have sized their default funds to ensure it is enough to absorb the losses arising from the default of its two largest members in 'extreme-but-plausible' market conditions. The default fund is comprised by IM, a default fund and a contribution of the CCPs own capital.

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<sup>88</sup> BoE's supervision of FMIs 1<sup>st</sup> Annual Report 2014.

<sup>89</sup> 'The two largest UK CCPs have made a number of significant enhancements to their margin methodologies since the PSOR was published in 2013' *ibid*.

<sup>90</sup> BoE's supervision of FMIs 2<sup>nd</sup> Annual Report 2015.

As noted, the Bank implements the parameter of ‘extreme-but-plausible’ market conditions. This parameter is developed through stress tests that are based upon hypothetical scenarios. CCPs design their own stress tests and the BoE only analyses the suitability of the scenarios that CCPs include in their tests<sup>91</sup>. In this matter, in contrast to the stress tests of Banks, the stress tests of CCPs are not uniform. The BoE view is that CCPs conduct their business in many different markets and with different types of transactions. Therefore, the implementation of standardised stress test for CCPs would be a futile exercise<sup>92</sup>. Nonetheless, in the international level, CPMI-IOSCO is developing additional regulatory guidance on the design of standardised CCPs stress test, as a means of enabling regulators to compare the resilience of CCPs.

Finally, the Bank reports that, in seeking to enhance the mechanisms CCPs use to manage liquidity and credit risk, it will allow CCPs to participate in its Sterling Monetary Framework<sup>93</sup>. The participating CCPs will have Sterling Reserve Accounts at the Bank, access to Operational Sterling Facilities and access to Sterling Liquidity Insurance.

### **3.3.3.2 Progress in Recovery and Resolution Rules**

Regarding the Recovery and Resolution of CCPs, the Bank required all supervised FMIs to work on developing recovery plans. The importance of this regime lies on the systemic consequences of a CCP’s failure. Therefore, implementing effective loss allocation rules to protect the CCPs is a key part of ending the concerns regarding the ‘too big to fail’ character of these institutions. Moreover, this regime seeks to ensure the continuity of CCPs’ services even in

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<sup>91</sup> *ibid.*

<sup>92</sup> Interview Mr. Paul Brione Head of Central Counterparty Supervision, Bank of England, London, 25<sup>th</sup> September 2015.

<sup>93</sup> The Bank considers it important for the safety and soundness of CCPs that they have access to liquidity arrangements in the currencies they clear. Bank of England Press Release, ‘European Central Bank (ECB) location policy for Central Counterparties (CCPs)’ (4<sup>th</sup> March 2015) <http://www.bankofengland.co.uk/publications/Pages/news/2015/036.aspx> accessed 16<sup>th</sup> October 2015.

times of financial distress. Although the majority of the losses suffered by a CCP come from members' default, it is equally important to develop loss-allocation arrangements for non-default losses.

Here, the Bank reported some advances following the reform of FSMA introduced in July 2013. In particular, the reform imposed the obligation on UK CCPs to maintain recovery plans from 1<sup>st</sup> February 2014 in order to meet the new recognition requirements. Moreover, CCPs are required to have in place rules to allocate the losses in the event of a clearing member's default. Similarly, the Bank took this opportunity to go beyond the EMIR regime by requiring CCPs to be put in place, by May 2014, arrangements to allocate non-default losses. These are the losses that might threaten the solvency of the CCP and are not caused by clearing members' default.

Furthermore, some legislative changes took place in 2014. The resolution regime contained in the Banking Act 2009 was extended to include Central Counterparties (CCPs). In July 2014, the HM Treasury issued secondary legislation that gave powers to the Bank of England to resolve a failing CCP. Although it was expected that the European Commission would issue legislation or guidance on CCP resolution, there has not been any progress.

### **3.3.3.3 Progress in Operational Risk Management**

Regarding the operational risk management, the Bank's work has been focused on ensuring operational resilience<sup>94</sup>. This is the management of 'cyber-risk' by controlling any attempt to penetrate, shut down or manipulate FMIs' computer systems. To that end, the Bank has been implementing a programme to act against cyber-attacks<sup>95</sup>. The programme includes enhancing understanding of

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<sup>94</sup> BoE's supervision of FMIs 2<sup>nd</sup> Annual Report 2015.

<sup>95</sup> BoE's supervision of FMIs 1<sup>st</sup> Annual Report 2014.

the threat to the financial sector, strengthening work to assess the sector's current resilience to cyber-attacks, developing plans to test the resilience of the sector, and improving the sharing of information<sup>96</sup>.

#### **3.3.3.4 Lack of progress in Governance**

The annual reports reveal the limited progress made in the supervision of the Governance of CCPs. The only advancement is the conformation of Board Risk Committees composed of representatives of clearing members and clients. The primary task of these risk committees is to advise the CCP's Board on any measures that might have an impact in the risk management of the CCP.

Although the Bank recognises that the Governance of CCPs is a supervisory priority, the regime does not include any rules regarding the quality of governance<sup>97</sup>. Such a regime needs to consider the potential conflicts between the CCPs' commercial objectives and their role in systemic risk management. Some of the fractures of the UK regime of CCPs in the OTCDM allude to the need to enhance the governance of CCPs.

#### **3.3.3.5 Progress in Disclosure**

The advance in terms of disclosure is an important step towards enhancing the transparency of the OTCDM. Experience over the past three years shows that CCPs are working to meet the requirements of the CPMI-IOSCO Disclosure Framework. The aim is to improve the quality and quantity of the information available to stakeholders. In particular, supervisors are interested in

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<sup>96</sup> *ibid.*

<sup>97</sup> The Bank says that, in the coming year, it will place particular emphasis on the quality of governance at UK CCPs. BoE's supervision of FMIs 2<sup>nd</sup> Annual Report 2015.

assessing the information about the functioning of FMIs and the level of compliance with the PFMIs. The first self-assessments were published during 2014 and 2015. Similarly, CCPs have published Accounts Disclosure Documents according to Article 39 of EMIR.

#### **3.3.3.6 Enforcement Powers of the Bank of England**

Finally, the Bank restates that, according to the regulation contained on FSMA and the Banking Act 2009, the Bank has the power to require FMIs to provide information, commission independent reports, make on-site inspections, require changes to FMIs' rules, and give directions.

In exercising these powers, the Bank of England is required by the FSMA to publish certain statements of procedure relating to the decisions resulting in statutory notices and publishing details of these statutory notices. Accordingly, the Bank issued in September 2013 a consultation paper on the proposed statutory statements of procedure in respect of the Bank's supervision of financial market infrastructures<sup>98</sup>. In this document, the Bank proposed the decision-making framework for giving warning notices and decision notices in the course of the Bank's supervision of recognised clearing houses<sup>99</sup>.

By establishing a multi-tier structure, the objective of the proposed decision-making process is to ensure that supervisory team of experts have the guidance and advice of senior bank officials. Therefore, decisions will be taken at different levels, depending on the impact, and will involve representatives from different areas of the Bank. There will be two decision-making committees

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<sup>98</sup> Bank of England, 'Proposed statutory statements of procedure in respect of the Bank's supervision of financial market infrastructures' (BoE, Consultation Paper, September 2013).

<sup>99</sup> FSMA s 395 requires the Bank to establish a Decision-Making Procedure for statutory Notice Decisions that is designed to ensure, amongst other things, that at least one of the decision-makers has not been directly involved in establishing the evidence on which the decision is based.

responsible for issuing statutory notices: the Financial Market Infrastructure Board and the Financial Market Infrastructure Review Committee. The FMI Board's members are part of the Bank's Executive Management Structure, and chaired by the Deputy Governor for Financial Stability. The FMI Review Committee consists of representatives from various areas of the Bank and is chaired by the Executive Director for Financial Stability.

The decision-making committees will seek to reach a consensus on the decisions. However, when a consensus is not possible they will vote. In order to support effective decision-making, the Bank has categorised the FMIs to be under its supervision. Category One includes those FMIs, which pose the greatest risks to financial stability in the event of disruption or failure, whilst Category Two captures the remainder. This classification is other indicia to understand that the Bank is implementing the risk-based approach to regulation in the sense of prioritizing the regulatory actions according to the level of risk of regulated firms.

The Bank develops the procedure of decision-making by considering two types of notices: the warning notice and the decision notice. Before explaining how each of them works, it is important to identify the warning notice as a demonstration of the judgement-based regulation and the early stage intervention powers of regulators. As will be illustrated in the next paragraphs, through the warning notice procedure the Bank is issuing pre-empting communication when suspicious actions have been identified in supervising the firm.

The regime for Warning Notices sets out that, if Bank staff believe that action requiring a warning notice is appropriate, they will recommend to the relevant decision-making committee to give the notice. In taking the decision, the committee will consider whether the recommendation is appropriately supported, as well as the responses received from the Financial Conduct Authority in light of the Memorandum of Understanding between the Bank and the FCA, and

decide whether to give notice according to the requirements of Section 387 FSMA.

Once the warning notice has been released, there will be a specific time of no less than 14 calendar days to make representations. The period might be extended by request. The recipient of the warning notice and third parties are entitled to make representations and respond to points made by the decision-making committee.

Similarly, the Regime for Decision Notices prescribes that the committee will review the material before them, consider the representations and comments made by Bank staff<sup>100</sup>, and issue the decision notice, meeting the requirements of Section 388 FSMA. In the Decision Notice, the Bank will include a brief summary of how it has dealt with the key representations made, and make any other decision related to the statutory notice.

Additionally, the proposal includes the 'Further Decision Notice'. Before the Bank takes action, it may give notice relating to a different action concerning the same matter conditioned to the recipient's consent.

According to Section 395 of FSMA, the Bank must publish information about statutory notice decisions in the course of the Bank's supervision. The rationale that justifies this publicity is that it would assist the achievement of the Bank's supervisory goals - for example, 'by informing the financial services industry of behaviour on the part of the relevant body which the Bank considers unacceptable'<sup>101</sup>. This attribution could be considered as an early intervention mechanism in front of the risks posed by specific firms, which is an element of

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<sup>100</sup> If the committee considers it relevant, they may ask the Bank staff to explain: Additional information about the matter, further explanation of any aspect, information about the Bank's priorities and policies, and legal advice.

<sup>101</sup> FSMA s 395.

the risk-based approach to regulation. Indeed, the factors the Bank will consider when deciding whether to publish or not include the potential advancement of its supervisory goals, enhancement of financial stability, providing a signal to relevant bodies as to the types of behaviour it considers being unacceptable, and preventing more widespread breaches of its requirements.

Another development of the Bank of England supervision of CCPs is on the Policy Statement giving directions to qualified parent undertakings of UK Recognised Clearing Houses.

### **3.3.3.7 The role of the Principles for Financial Market Infrastructures (PFMIs)**

The Bank of England approach to the supervision of FMIs is guided by the international CPMI-IOSCO ‘Principles for financial market infrastructures’ (PFMIs)<sup>102</sup>. These principles refer to the management of risks faced by FMIs including credit, liquidity, operational and legal risks, as well as governance, default management and transparency. The PFMIs were designed to ensure that the infrastructure supporting global financial markets is ‘more robust and thus well placed to withstand financial shocks’<sup>103</sup>. In light of that premise, the Bank is focusing intervention on the areas that represent a clear threat to stability, and will accordingly exercise its enforcement powers<sup>104</sup>.

Although the Bank repeatedly insists that the PFMIs are in the core of supervision of CCPs, they are only parameters that illustrate how supervision is

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<sup>102</sup> ‘The instrument could be defined as set of ‘new and more demanding international standards for payment, clearing and settlement systems, including central counterparties’. CPMI-IOSCO Principles of Financial Market Infrastructures. <http://www.bis.org/publ/cpss101a.pdf> accessed 22 may 2013 (Hereinafter CPMI-IOSCO PfmI).

<sup>103</sup> *ibid.*

<sup>104</sup> Emma Murphy, ‘Changes to the Bank of England’ (Bank of England, Quarterly Bulletin Q1, 2013) 26.



conducted to foster financial stability. The principles published in April 2012 seek to harmonise and strengthen the existing international standards for FMIs and within them Central Counterparties (CCPs). The PFMI incorporates specific minimum requirements to ensure a common base level of risk management across FMIs and countries<sup>105</sup>, but each jurisdiction is expected to further develop the rules that materialise the principles.

Moreover, the PFMI establishes a series of responsibilities of central banks, market regulators and other relevant authorities for financial market infrastructures. The primary responsibility is to incorporate these principles and their responsibilities in their own regulatory framework. Once they have been incorporated, central banks and regulators are expected to follow up the implementation, use and assessment of observance of such principles by the FMI. That stage of assessment is further assisted by the CPMI-IOSCO Assessment Methodology that provides guidance for assessing and monitoring compliance. The Assessment Methodology is a tool useful for FMI when self-evaluating its performance in front of the principles, it also helps regulators to evaluate the way they discharge their own responsibilities as regulators and supervisors.

#### **3.3.3.8 Summary of the Bank of England Supervision**

To sum up, the Bank of England supervisory regime is constructed upon the objective to achieve the robustness of CCPs. In doing so, the Bank has built a system of rules focused on the management of credit, liquidity and operational risks. From the Bank's perspective, the safety and soundness of CCPs is achieved by means of prudential supervision. Therefore, the strengthening of loss allocation and recoverability rules has occupied the Bank's attention in the first years of the regime.

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<sup>105</sup> CPMI-IOSCO Pfmi, 12.

It is also notable the fact that the Bank, in implementing the risk-based approach to regulation, is prioritizing its intervention into certain areas - those which the Bank considers represent a threat to the achievement of its objectives. As a result, other areas of supervision have not been sufficiently developed. For instance, governance, disclosure, and resolvability of CCPs. In light of these shortcomings, this research explores in the next section and chapters 4 and 5 the fractures of the UK regime of CCPs in the OTC Derivatives Market.

### **3.4 Fractures of the UK regime of CCPs in the OTCDM**

The introduction to this chapter promised to organise the analysis of the CCPs regime following the two stems of the risk-based regulation: prudential supervision and conduct of business. However, it is not possible to deliver that promise. After exploring the prudential supervision conducted by the Bank of England, this research found that there is no conduct of business regulation in place. That is the first fracture of the UK regime for CCPs in the OTCDM.

#### **3.4.1 The absence of a coherent conduct of business regime of CCPs**

The Financial Conduct Authority (FCA) is responsible for regulating conduct in retail and wholesale markets (including both exchange-operated markets and OTC dealing), and supervising the trading infrastructure that supports those markets. However, the FCA has not designed a regime of conduct of business for CCPs, which are part of the post-trading market infrastructure of the OTCDM. This research argues that the reason is the misinterpretation of the FCA's mandate. It has been wrongly understood that the Bank of England is the only regulator of CCPs. In the interviews conducted during the course of this research, to regulators (Bank of England and FCA) and CCPs, it was notorious that none of them were aware of the conduct of business regulation and supervision, and who would be in charge of it. The problem concerning the lack

of a conduct of business regime for CCPs goes beyond the lack of design; it also affects the exercise of enforcement powers. Under the current regime, it is not clear whether the BoE could sanction a CCP for the breach of a conduct of business rule.

In order to explain the fracture, this section addresses several questions concerning the limited role that the existing rules of conduct of business have in the UK regime of CCPs, and how a coherent regime should be further developed. It firstly argues that the FCA should be the conduct regulator of CCPs in the OTCDM. It then emphasises the importance of having a conduct of business regime and the issues it would solve. Finally, it recommends the elements that such a regime would have, including consumer protection and competition.

#### **3.4.1.1 The FCA should have a role**

The Financial Conduct Authority (FCA) is responsible for regulating conduct in retail and wholesale markets (including both exchange-operated markets and OTC dealing), supervising the trading infrastructure that supports those markets, and for prudential regulation of firms not prudentially regulated by the Prudential Regulation Authority (PRA).

Even though the regulation and supervision of clearing and settlement systems (trading infrastructure), including Central Counterparties CCPs, was expressly assigned to the Bank of England, it has been stated that in its supervision the Bank will work closely with the Financial Conduct Authority, reflecting the FCA's responsibilities for the trading infrastructure and market product<sup>106</sup>.

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<sup>106</sup> List the MoUs between the FCA and the Bank of England

Accordingly, in the memorandum of understanding between the Bank of England (BoE), the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA):

*'FCA is responsible for regulation of organised financial markets including RIEs and other trading platforms, **and the conduct of participants in relation to the financial instruments and derivatives contracts trades both on those markets and in the OTC financial markets**'*

A comprehensive interpretation of this mandate leads this research to argue that the Financial Conduct Authority carries out the conduct of business of the OTC derivatives participants, including Central Counterparties CCPs. From this interpretation, it follows that the FCA will design the conduct of business regime for CCPs, and then it will supervise, in coordination with the Bank of England, the compliance of such rules through a toolkit of enforcement powers. However, in practice this is not the case.

An alternative interpretation prevalent amongst UK authorities is that the only regulator and supervisor of the CCPs in the OTCDM is the Bank of England, and that the FCA supervision of OTCDM participants does not include Central Counterparties. In other words, to understand that CCPs are not 'OTCDM participants', and therefore are not supervised by the FCA in any matter. Following this interpretation, the Bank of England would be the prudential and conduct of business supervisor. However, the first stumble of this interpretation is that the BoE is not a conduct supervisor - it is not part of the Bank's mandate.

Even accepting the second interpretation of the mandates - this is that the FCA has no supervisory functions over the CCPs in the OTCDM - the critique regarding the absence of a conduct of business regime remains. Irrespective of the authority responsible to implement conduct rules, the UK regime of CCPs in the OTCDM is fractured.

The findings of this research are supported by the interviews conducted at a CCP operating in London, CME Clearing Europe<sup>107</sup>, and officials of the FCA<sup>108</sup> and the Bank of England. All of them were questioned about the role of the FCA as conduct of business supervisor of CCPs. The responses were different in the three cases.

The path of finding out the issues concerning the conduct of business rules for CCPs started with the first interview conducted at CME Clearing Europe Ltd. The staff members interviewed clearly stated that the only UK authority overseeing the CCPs' operation in the national OTCDM was the Bank of England. Moreover, when questioning about the parameters of conduct they follow in providing their services, they made reference to the internal Codes of Conduct and Corporate Governance. Even so, this research recognises the important role that self-regulation instruments have in the CCPs' regime; State regulation and concomitant supervision are fundamental to ensure compliance. As the interview was conducted in the first year of implementation of the regime, the preliminary conclusion was to understand that the FCA would issue a conduct of business regime during the next year.

Later on, the second interview took place at the FCA, after the second year of implementation of the regime. In this opportunity, when asking about the role of the FCA in front of CCPs in the OTCDM, it was explained that the BoE definitely has the leading role in supervising CCPs. However, the FCA is very much involved with CCPs' work through two mechanisms. Firstly, the fact the FCA participates in the EMIR College of Supervisors; this follows the mandate of EMIR that, for each EU-based CCP, a college of supervisors will be established that is made up of relevant national regulators and ESMA; these

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<sup>107</sup> Interview Grant Elliot (Senior Analyst Clearing and Business Development), Matthew Gravelle (Government Relations Team) and Huong Auduc (Legal Department) CME Clearing Europe Ltd., London, 12<sup>th</sup> June 2014.

<sup>108</sup> Heather Pilley, Technical Specialist, Derivatives Reform Team, FCA. Phone Interview 19<sup>th</sup> August 2015.

colleges are responsible for authorising and supervising EU CCPs. Although this part of the answer seems to be confusing and suggests that the FCA is indeed acting as a supervisor of CCPs, Article 18 of EMIR<sup>109</sup> helps to clarify why the FCA participates in these colleges. The reason is that the FCA is responsible for the supervision of clearing members. Hence, besides the CCPs' competent authority, which in the UK is the Bank of England, the FCA sits in the college of supervisors, but in its quality of supervisor of clearing members. This is one of the first aspects that delimits this research that is exclusively devoted to the study of the regulation and supervision of CCPs; the supervision of clearing members is beyond the scope of this research.

Secondly, the FCA actively conducts the supervision of what is called '*client clearing*'<sup>110</sup>, that is the method that allows non-clearing members to have the benefits of clearing. According to the FCA this is a conduct matter, which is in the sense of how clearing members (CMs) deal with their clients. Therefore, according to the FCA, its role in the OTCDM is supervising the conduct of clearing members (CMs) and its clients. However, the issue remains because the client clearing regime is part of the supervision of CMs, and not the supervision of the CCPs.

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<sup>109</sup> EMIR TITLE III AUTHORISATION AND SUPERVISION OF CCPs. CHAPTER 1 Conditions and procedures for the authorisation of a CCP. **Article 18. College 2.** The college shall consist of: (a) ESMA; (b) the CCP's competent authority; **(c) the competent authorities responsible for the supervision of the clearing members of the CCP** that are established in the three Member States with the largest contributions to the default fund of the CCP referred to in Article 42 on an aggregate basis over a one-year period; (d) the competent authorities responsible for the supervision of trading venues served by the CCP; (e) the competent authorities supervising CCPs with which interoperability arrangements have been established; (f) the competent authorities supervising central securities depositories to which the CCP is linked; (g) the relevant members of the ESCB responsible for the oversight of the CCP and the relevant members of the ESCB responsible for the oversight of the CCPs with which interoperability arrangements have been established; (h) the central banks of issue of the most relevant Union currencies of the financial instruments cleared.(...)'.

<sup>110</sup> Counterparties may meet the clearing obligation as a direct clearing member, client of a clearing member or indirectly through a clearing member. CCPs and clearing members must offer, and clients will need to choose between: individual client segregation and omnibus client segregation'. FCA Seminar (July 2015) <http://www.fca.org.uk/static/documents/emir-obligation-clear-margin-otc-derivative-trades.pdf> accessed 6th October 2015.

The scenario of uncleared derivatives is different altogether; this is the category of transactions that are not subject to the clearing obligation. The FCA has an important role for the uncleared derivatives, along with the PRA. Therefore, once the definitive uncleared derivatives regime is in place, the implementation will fall mostly on the PRA for their regulated firms, and in the FCA for the solely regulated firms, whilst the Bank of England would be looking at this part of the market for systemic risk matters. In this part of the OTC market, it is perfectly clear that the three authorities will be involved but in slightly different ways.

The third interview was conducted at the Bank of England<sup>111</sup>. It confirmed the confusion surrounding the implementation of the conduct of business supervision of CCPs in the OTCDM. In particular this research draws two conclusions. Firstly, the BoE is completely focused on the prudential supervision of CCPs. From the Bank's perspective, CCPs' standards of conduct are not an area that poses a significant threat to the Bank's regulatory objectives. Therefore, the conduct of business supervision is not a priority. This finding has profound implications concerning risk-based regimes. This means that the process of risk identification and allocation of sources is leading regulators to prioritize prudential supervision over conduct of business in the case of the CCPs' regime in the OTCDM. Then, the inevitable conclusion is that the use of a risk-based approach in the CCPs' regime in the OTCDM is fracturing the UK regulation and supervision. The fracture consists of breaking the balance between the two stems of the risk-based approach: prudential supervision and conduct of business. The concern is that the Bank of England is privileging the prudential regulation of CCPs, while overlooking the importance of conduct rules, and as a result the UK does not have a conduct of business regime for CCPs in the OTCDM.

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<sup>111</sup> Interview Mr. Paul Brione Head of Central Counterparty Supervision, Bank of England, London, 25<sup>th</sup> September 2015.

The second conclusion is that the Bank of England reinstates its position as the only supervisor of CCPs, and in practice the FCA has no direct role in terms of conduct of business supervision. In the hypothetical event that a CCP breaches a typical conduct rule - for instance, client asset management - it would be expected that the BoE will be the authority that counts with the enforcement powers to impose sanctions. This is, however, not clear whatsoever in light of the mandate where the BoE is regulator of CCPs. Moreover, regarding conduct of business the only existing rules are the provisions of the European Regulation EMIR. This situation demonstrates the notorious secondary role that conduct of business has in the current UK regime for CCPs. The Bank supervises that CCPs observe the conduct rules of EMIR, but it has not developed any further regulation. Although it is true that EMIR is directly applicable in the UK, it is also true that EMIR is a guide and that national competent authorities are entitled to further develop rules and carry out their domestic implementation. Neither the Bank of England, much less the FCA, have focused their regulatory attention on developing the conduct of business standards for CCPs in the OTCDM.

To sum up, the lack of clarity concerning the conduct of business regime for CCPs in the OTCDM in the UK has longstanding implications. It reveals that the regime is affected by two drawbacks of the risk-based approach to regulation: the absence of organisational culture UK regime of CCPs in implementing risk-based regimes; and the use of risk-based regulation is creating ‘manufactured risks’ because it has allowed prioritization of prudential matters over conduct of business. The inconsistency of the regime shows that the risk-based approach to regulation is not assisting effectively the supervision of CCPs in the OTCDM. The rationale of adopting an approach to regulation is to have a ‘route-map’ that will guide the way regulation and supervision are conducted. However, the findings of this research show that there is no such ‘route-map’ in the case of the UK regime for CCPs in the OTCDM, because one of the pillars of the risk-based approach – the conduct of business - is missing. A quote from one of the most famous novels of English literature helps to illustrate this issue: *‘If you don’t*



*know where you're going, any road will get you there*<sup>112</sup>. UK regulators know and hope that CCPs will make OTCDM safer and therefore regulation must ensure the robustness, safety and soundness of the CCPs. To that end, regulators chose to follow an approach to regulation that integrates prudential and conduct areas, but when designing and implementing the regime, they decided to take a step back from the original 'route-map', confident that they would achieve the same outcome. If the UK regime is guided by risk-based regulation but in practice is being partially implemented, the approach is not serving its 'route-map' purpose. As a result, the BoE as regulator is judiciously supervising the most urgent needs of the market, seeking to ensure the safety and soundness of CCPs in the OTCDM, while deliberately overlooking that the robustness of CCPs should be built upon prudential as well as conduct of business rules. It seems that regulators are aware that conduct of business should be part of the regime, but decided to prioritize the prudential regulation.

Also, the lack of clarity about the conduct of business regime for CCPs in the OTCDM questions the effectiveness of regulators' enforcement powers. The enforcement powers of the Bank of England, as explained before, allow the Bank to require CCPs to provide information, commission independent reports, make on-site inspections, require changes to CCP's rules, and give directions. However, the absence of a conduct of business regime prompts confusion about the role that the BoE or the FCA<sup>113</sup> would have in the event of a breach of the EMIR conduct standards, and therefore there is a doubt concerning how the system of enforcement would work. In other words, it is not certain to assume that the Bank, as the only regulator of CCPs in the OTCDM, could use its enforcement powers in an event of non-compliance of conduct of business standards, especially because the Bank does not have the mandate of being a

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<sup>112</sup> Lewis Carol 'Alice in Wonderland'

<sup>113</sup> 'The FCA [took] on the FSA's enforcement responsibilities and the vast majority of enforcement action is likely to be taken for **conduct of business** failures. The FSA's policy of "credible deterrence", which has resulted in a significant increase in the level of fines and the number of criminal prosecutions, looks set to continue alongside the focus on senior management responsibility. In the enforcement sphere at least, senior management and approved persons will need to be able to support strategic decisions by reference to sound management information'. Lista M Cannon and Paul Adams, 'Twin peaks regulation' (2012) 162 NLJ 440.

conduct regulator<sup>114</sup>. Neither is it certain to understand that the FCA is the competent authority to enforce conduct standards, because the FCA is not supervising CCPs in the OTCDM.

#### **3.4.1.2 Why do CCPs need a conduct of business regime?**

The second part of this section addresses the importance of a conduct of business regime for CCPs in the OTCDM. If the most notorious concern surrounding the CCPs functioning in the OTC derivatives market is the resilience, safety and soundness, and this objective can be achieved to a great extent by means of prudential rules, then the question is why the conduct of business regime of CCPs in the OTCDM is needed, and should be developed by UK regulators.

The first part of the answer is in the role that CCPs have in the OTCDM. The role of CCPs in the OTCDM is different from the role they have in exchange markets. In the OTCDM, CCPs are particularly focused on credit risk management<sup>115</sup>. As explained before, the role of CCPs replaces the traditional bilateral structure of OTC derivatives transactions by imposing itself as the new counterparty for the two initial counterparties. The change in structure means that there are contractual arrangements between the CCP and the clearing members; these arrangements are ruled by contracts and mainly by CCPs' rulebooks. This research argues that there are certain elements of that relationship between the CCPs and clearing members that could be overseen by means of conduct of business rules. In particular, the extent that the term

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<sup>114</sup> This interpretation would contradict the spirit of the UK regulatory architecture set out in the White Paper: Creating these centres of regulatory excellence will enable each part of the framework to focus on what it knows best. Sitting within the Bank of England, the Financial Policy Committee will make judgements about risks to the overall stability of the financial system, and offer advice, recommendations, or binding directions to ensure that these risks are dealt with. (...) And the Financial Conduct Authority will make judgements about risks to consumer protection, competition and market integrity and have new powers to take action. This clarity of focus will mean that accountability – to Parliament, the Government, and to the wider public – is clear.

<sup>115</sup> Gregory, 'Central Counterparties: Mandatory Clearing and Bilateral Margin Requirements for OTC Derivatives' (n 13) 37.

‘consumer’ in the broadest sense could include clearing members, and as a result they would be subject to a consumer protection regime.

The reason to argue the need for a consumer protection regime that includes clearing members is that the content of the CCPs’ rulebooks heavily benefits the contractual position of CCPs. For instance, the limitation of CCPs’ liability reflects how some clauses of CCPs’ rulebooks greatly undermine the contractual rights of clearing members. Regulators privilege the CCPs’ capacity to rule their own contracts in these ‘unfair’ terms, under the idea that allowing it contributes to the robustness of the CCP. Therefore, a consumer protection regime would help to correct the imbalance<sup>116</sup> in the relationship between CCPs and clearing members.

Similarly, the UK regime of CCPs in the OTCDM would benefit from protecting consumers. After the GFC<sup>117</sup> there has been an increasing recognition of the relevance that consumer protection has in capital markets regulation. It has been argued that ‘capital markets require transparency, fairness, equal access, competition and investment soundness’<sup>118</sup>. In this sense, the reforms to the UK regime of CCPs in the OTCDM should grant authorities with greater powers to intervene in the market. (The) exercise of powers should not be restricted to

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<sup>116</sup> ‘Financially sophisticated participants in wholesale markets can reasonably be expected to attend to their own informational needs. The objective of regulating wholesale markets is therefore limited to ensuring that market infrastructure is sound and that markets are free from abuses.’ Justin O’Brien and George Gilligan, ‘Culture and the future of financial regulation: how to embed restraint in the interests of systemic stability’ (2014) 8 LFM 2, 115–127 See S Miller, *The Moral Foundations of Social Institutions: A Philosophical Study* (Cambridge University Press, 2010) for a sustained argument to this effect across a range of fundamental contemporary institutions. For a short treatment of these issues, see his entry in the *Stanford Encyclopedia of Philosophy* (ed Edward N Zalta), on social institutions [www.plato.stanford.edu](http://www.plato.stanford.edu).

<sup>117</sup> ‘Avgouleas stated that private ordering of public markets is rapidly receding, as well as the public — private partnership in production of regulation, together with its enforcement and its derivative risk-based regulation. Public law and public regulators are increasingly encroaching in areas that were largely the realm of private law, which leads to acquisition of excessive regulatory power’. Alexander Stöhr, ‘Approaches to financial regulation in view of the crisis. Report about the 34th meeting of the German Comparative Law Society’ (2015) 23 JFRC 1, 73–83.

<sup>118</sup> Rosa Lastra and Andrea Miglionico, ‘The House of Lords report on the post-crisis EU regulatory framework: where does the UK stand?’ (2015) 5 JIBFL 303B 2.

prudential supervision, but also to further develop the conduct of business rules through consumer protection<sup>119</sup>.

A second reason that highlights the relevance of conduct of business regime is the potential issues regarding competition originating among CCPs. There are competition issues that might adversely affect the growth of OTCDM; for instance, the concentration of the market<sup>120</sup>. As will be explained, there are certain market practices of CCPs that will need to be regulated in the UK.

However, the challenge is to justify the need for a special regime of conduct of business for CCPs in the OTCDM, while general consumer protection and competition law can help to solve the respective issues triggered in the market. This rationale goes back to the issues affecting the conduct of business regulation in general. MacNeil<sup>121</sup> categorises such issues, saying that the scope of conduct of business is limited, because it is trying to do what can be done with general law. Furthermore, it is unclear what relationship it has with ethics, and its level of complexity prevents conduct of business regulation to be effectively applied. Thus, it could be argued that these issues are transmitted to the CCPs' conduct of business regimes, and that laws of consumer protection and competition provide enough regulation to solve these matters. However, the reason to argue for a further development of conduct of business rules lies in the need to recognise the potential problems that can affect the functioning of the CCPs and their relationship with clearing members and clients. Certainly, a special regime would not exclude or replace the use of general rules. Instead it will reinforce it. Such a regime will promote the design and implementation of a body of regulation that attends to the needs arising from CCPs' legal status as market infrastructures, and in turn it will contribute to ensure the robustness of these institutions, which is in the interest of UK regulators. Contrary to the

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<sup>119</sup> The need for consumer protection is a principal justification for financial regulation' See Howard Davies, 'Why Regulate?' (FSA, Speech, 4th November 1998) <http://www.fsa.gov.uk/Pages/Library/Communication/Speeches/1998/sp19.shtml> accessed 25<sup>th</sup> January 2016.

<sup>120</sup> FCA, 'Wholesale sector competition review 2014-15' (FCA, February 2015) 94 <https://www.fca.org.uk/static/documents/feedback-statements/fs15-02.pdf> accessed 12<sup>th</sup> October 2015.

<sup>121</sup> Iain MacNeil, 'Rethinking Conduct Regulation' (2015) 7 JIBFL 413.

opinion that fragmentation does little to promote the clear and consistent development of standard market practices<sup>122</sup>, this research argues that a special regime of conduct of business for CCPs in the OTCDM will enhance the functioning of the market.

Moreover, this research recognises that a special conduct of business regime for CCP would not necessarily extend the enforcement powers of the FCA as conduct regulator. This is to accept that other authorities – for instance the CMA - and courts will continue to solve matters related to conduct of business violations, issues concerning consumer protection, unfair contract terms, competition and so on. Instead, the FCA will design and implement standards of conduct relevant to the role CCPs play in OTCDM and will have efficient enforcement tools. This argument reinstates the importance of the mandate that the FCA has as conduct regulator of financial markets. The FCA has sufficient knowledge of the particularities and dynamics of conduct in each of the regulated firms and markets, and that places the FCA in a special position to enforce conduct of business standards in financial markets, regardless of the other instances and authorities where some of the conduct issues can be solved.

#### **3.4.1.3 Morphology of a conduct of business regime for CCPs**

This section addresses the question concerning how a conduct of business regime for CCPs in the OTCDM would look like. The aim is to put into consideration some of the elements that are particularly relevant to the regulation of conduct of CCPs in the OTCDM. To build up the proposal, this research considers the UK conduct of business rules and the creation of the FCA to understand what conduct of business entails, and the conduct of business rules of the European Regulation EMIR that are directly applicable to CCPs recognised and authorised in the UK.

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<sup>122</sup> *ibid* 418.

### 3.4.1.3.1 Consumer Protection

Financial regulators are working on the development of regimes that require regulated firms to follow certain standards of conduct when carrying out their business. This means that the pillar of conduct of business is developed along with the prudential regulation. As was explained, conduct of business is also a fundamental part of risk-based regimes. However, there is no single definition of what conduct of business means; in each jurisdiction, regulators design standards of conduct that mostly include consumer protection, market conduct rules and some minimal ethical codes of conduct<sup>123</sup>.

The history of the conduct of business in the UK<sup>124</sup> combines statutory and self-regulation elements. Although a detailed description of the regulatory evolution is not the purpose of this section, it is important to highlight the dynamics of the conduct of business regime in the history of the UK financial system<sup>125</sup>. The interest on regulating conduct of market participants can be traced back to 1967<sup>126</sup>. However, the first call for a formal<sup>127</sup> conduct of business

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<sup>123</sup> In an attempt to understand what conduct of business includes, the firm Norton Rose published a document that, although it is centered on the insurance market, is illustrative about the identifiable elements of this part of the regulatory approach <http://www.nortonrosefulbright.com/knowledge/publications/115387/beyond-law-understanding-the-scope-of-conduct-regulation> accessed 6<sup>th</sup> October 2015.

<sup>124</sup> George Gilligan, 'The Origins of UK Financial Services Regulation' (1997) 18 The Company Lawyer 6, 167-176, 1997 <http://ssrn.com/abstract=2213218> accessed 24<sup>th</sup> October 2015.

<sup>125</sup> For a historic study about the patterns of the UK financial regulation and how they have emerged repeatedly *See* *ibid*.

<sup>126</sup> '*Act To Restrain The Numbers and Practice Of Brokers And Stock Jobbers [1697]*: The 1697 statute is much less well-known but some of its key features were: Brokers and jobbers had to be licensed; The numbers of brokers should be restricted to one hundred, they must swear oaths and pay a bond; Maximum limits were placed upon commissions; all brokers should keep a broker's book naming all parties and recording details of all contracts, agreements and bargains within three days of being instigated'. Nevertheless, despite its limited effects in practice, **the 1697 Act was a crucial legislative initiative, because it was the first attempt by any government to impose certain standards of probity and competence upon those dealing in the embryonic securities market.** (...) The legislation was both punitive and preventive, emphasizing the twin concepts of anti-fraud and due diligence, and merging administrative and criminal justice processes. The statute also recognised for the first time the value of public esteem and censure as a sanction in the financial sector, and interestingly this sanction [was] then contained in section 60 of the FSA. (...) Under S.60, the Securities Investment Board [SIB] may publicise the fact that a person or firm has breached the requirements of the FSA. It has the potential to be a powerful sanction in an industry where reputation is crucial, but it is one that the SIB has been reluctant to apply' *ibid*.

regime<sup>128</sup> appeared when it was recognised that the application of fiduciary law was simply too unclear to provide firms with the certainty as to their duties and obligations which they needed in order to function efficiently<sup>129</sup>. As Common Law could not provide this certainty, it is reported that the CSI and the Stock Exchange introduced their codes for conflicts of interest in 1984; however, there were concerns regarding the legitimacy and the use of self-regulatory instruments to rule conflicts of interest. After a long process of regulatory and institutional reforms, the Financial Services and Markets Act of 1986 conferred wide regulatory powers to the Securities and Investments Board (SIB). The SIB issued some conduct of business rules<sup>130</sup> applicable to, among other firms, Recognised Clearing Houses. However, the Companies Act 1989 altered such an attribution of powers, and in relation to the conduct of business, it granted the SIB with the power to issue statements of principle ‘as to conduct and financial standing of firms to all authorised persons’<sup>131</sup>; this included the members of Self-Regulatory Organisations (SROs). The role of SROs was, therefore, to enforce such principles and codes of practice in relation to their members<sup>132</sup>.

It is relevant for this research to highlight the elements that, from the beginning, have been part of the conduct of business regimes. The focus of the conduct of business in the reform introduced by the Companies Act 1989 was to ensure that the principles issued by the SIB and related SRO rules provided an adequate level of investor protection<sup>133</sup> according to the different types of customer. The reform also emphasised the promotion of high standards of

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<sup>127</sup> There were previous statutory regimes related to certain elements of the conduct of business, but these instruments were dispersed: Prevention of Fraud (Investments) Act 1958, and then the 1986 Act. Licensed Dealer (Conduct of Business) Rules 1960. Afterwards the process of reform started with several reports: The ‘Wilson Report’, *Report of the Committee to Review the Functioning of Financial Institutions*, Cmnd.7937 (HMSO, 1980); and the ‘Gower Report’, *Review of Investor Protection, Report, Part I* (Cmnd.9128) (London, 1984); L.C.B. Gower, *Review of Investor Protection, Report, Part II* (London, 1985) and Gower, *Review of Investor Protection, Discussion Document* (HMSO, London, 1982) Julia Black, *Rules and Regulators* (OUP, 1997) 47.

<sup>128</sup> *ibid* 54.

<sup>129</sup> Law Commission, *Fiduciary Duties and Regulatory Rules: A Consultative Paper*, CP N. 124 (London, 1992) and *Fiduciary Duties and Regulatory Rules*, LC N. 236 (London, 1995) in *ibid*.

<sup>130</sup> s 48 Financial Services Act 1986.

<sup>131</sup> s 47A, inserted by s 192 Companies Act 1989 (hereinafter CA 1989).

<sup>132</sup> s 206 CA 1989.

<sup>133</sup> s 114 (9) CA 1989.

integrity and fair dealing, the duty of authorised persons to act with due skill, care and diligence, the obligations concerning relationships with customers including the timely provision of information to inform investment decisions, the duty to keep inspection of records and so on.

Afterwards, with the creation of the Financial Services Authority (FSA), there was a strong emphasis on recognising that prudential supervision and conduct business are closely related, even though it is not easy to draw a clear dividing line between the two<sup>134</sup>. Clive Briault, who was the first FSA Director of Central Policy, accepted that there is a considerable overlap – both conceptually and in practice – between prudential and conduct of business regulation, especially in risk-based approaches to regulation<sup>135</sup>. This difficulty accompanied the FSA supervision from the beginning. Nevertheless, the FSA diligently designed a large part of the current conduct of business rules<sup>136</sup> and codes,<sup>137</sup> including conduct rules for the OTCDM<sup>138</sup>, but the problem was the implementation<sup>139</sup> of the regime. The FSA was blamed for not balancing prudential and conduct of business supervision. This is inextricably similar to what is happening to the Bank of England in the supervision of CCPs in the

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<sup>134</sup> Clive Briault, 'The Rationale for a Single National Financial Services Regulator' (1999) FSA Occasional Paper N° 2, 14.

<sup>135</sup> *ibid* 20.

<sup>136</sup> Interpreting the content of COBS \**Re Lehman Brothers International (Europe) (in administration)* [2010] EWCA Civ 917. Lord Neuberger MR, Arden LJ and Sir Mark Waller 2 August 2010.

<sup>137</sup> The FSA attempted to harmonise the relevant provisions in the Conduct of Business Code (COB). The main provisions apply with regard to the relationship between regulated firms and their customers are set out in the COB module of the Handbook.

<sup>138</sup> 'The conduct of derivative-related investment business is to some extent controlled through certain provisions contained in the FSA Handbook (formerly the SRO rules) which effect dealings in both traded and OTC derivatives. (...) With regard to the OTC market at the wholesale level, general standards of conduct for principals and broking firms were set out in The London Code of Conduct, which operated as part of the Bank of England's Grey Paper regime. The London Code of Conduct was then replaced by the FSA's code of Inter-Professional Conduct which forms part of the Market Conduct sourcebook (MAR) within Block 2 (Business Standards) of the last version of the FSA Handbook'. Blair, Allison, Morton, Richards-Carpenter, Walker and Walmsley, *Banking and Financial Services Regulation* (Third edn., Butterworths Lexis Nexis 2002) 507.

<sup>139</sup> 'The Financial Services Authority (FSA) was ineffective because it failed to deliver a good balance of 'prudential' and 'conduct' regulation, according to the chief executive of the Prudential Regulation Authority (PRA).' Nicola Brittain, 'PRA: FSA botched 'conduct' and 'prudential' regulation mix' (Professional Adviser, 2<sup>nd</sup> May 2013) <http://www.professionaladviser.com/ifaonline/news/2265707/pr-a-fsa-botched-conduct-and-prudential-regulation-mix> accessed 7<sup>th</sup> October 2015.



OTCDM.

In this context, the creation of the FCA provided an opportunity to develop a new approach to conduct regulation<sup>140</sup>. The mandate of the Financial Conduct Authority (FCA) might be illustrative as to what a conduct of business regulator is responsible for. The FCA was created to fulfil three operational objectives: protect consumers; enhance the integrity of the UK financial system; and help to maintain competitive markets and promote effective competition in the interests of consumers<sup>141</sup>. In order to conduct the supervision of these areas the FCA will make rules, prepare and issue codes, provide general guidance and determine the general policy and principles<sup>142</sup>. Moreover, under the new regime, the government intended to vest the FCA with new and more intrusive powers of intervention. For instance, they were now granted the power to direct firms to withdraw or amend misleading financial promotions with immediate effect; and to publish warning notices in relation to disciplinary matters<sup>143</sup>.

Hence, the FCA approach includes preventive actions in relation to the operation of markets for financial products and services, where there is evidence that these are not operating in the interests of the wider economy<sup>144</sup>. Similarly, the regime allows the FCA to intervene early in relation to products where risks

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<sup>140</sup> HM Treasury, 'A new approach to financial regulation: building a stronger system' CM8012 (February 2011) 59 (Hereinafter HM Treasury, A new approach to financial regulation: building a stronger system' (2011).

<sup>141</sup> FSMA 2000 as amended by the FSA 2012 pt 1 A The Regulators. ch 1 The Financial Conduct Authority. 1B The FCA's general duties.

(1) In discharging its general functions the FCA must, so far as is reasonably possible, act in a way which—

(a) Is compatible with its strategic objective, and

(b) Advances one or more of its operational objectives.

(2) The FCA's strategic objective is: ensuring that the relevant markets (see section 1F) function well.

(3) **The FCA's operational objectives are—**

**(a) The consumer protection objective (see section 1C);**

**(b) The integrity objective (see section 1D);**

**(c) The competition objective (see section 1E).**

<sup>142</sup> Financial Services and Markets Act 2000 as amended by the Financial Services Act 2012 PART 1<sup>a</sup> The Regulators CHAPTER 1 The Financial Conduct Authority. The FCA's general duties 1B The FCA's general duties.

<sup>143</sup> HM Treasury, A new approach to financial regulation: building a stronger system' (2011).

<sup>144</sup> FSA, 'The FCA approach to regulation' (FSA, June 2011) 23.

are likely to outweigh the benefits the product will bring, or when the product does not meet regulatory standards and consumer detriment is occurring.

Crucially important for this research is the proposition of the FCA to adopt a differentiated approach. The FCA is expected to tailor its approach and the use of its regulatory tools to the particular risks in the sectors, firms and products. This emphasis, that includes major firms and market infrastructure providers, ‘will be more thematic work, targeting product services and practices which have the potential to cause consumer or market detriment, than on firm specific risk’<sup>145</sup>. The forthcoming conclusion is, therefore, that the conduct of business regime for Central Counterparties would take into account the particularities of the role that CCPs have in the OTCDM.

In addition, the FCA’s work is conducted to intervene proactively to make markets more efficient and resilient and enhancing integrity and choice<sup>146</sup>. The aim is to ensure that the conduct of market participants, as in OTCDM, is compatible with a fair and safe market, deterring market abuse and pursuing transparency<sup>147</sup>. The implementation of the new approach is part of the FCA Handbook and the Business Standards, which includes the Conduct of Business Sourcebook and the Code of Market Conduct, relevant for the OTCDM.

Following this line of thought, the first element that can be extrapolated from the UK experience is that the conduct of business regime is concerned with consumer<sup>148</sup> protection. But rather than focusing on the protection of clients from the insolvency of individual financial institutions, it emphasises safeguarding clients from unfair practices.<sup>149</sup> Moreover, the UK conduct regulation also

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<sup>145</sup> *ibid* 23.

<sup>146</sup> *ibid* 24.

<sup>147</sup> *ibid*.

<sup>148</sup> Consumer in the widest sense. For, instance the FCA Position Paper notes that the Definition of consumer will cover: retail consumers buying financial products, retail investors in financial instruments and a wide section of wholesale consumers’ *ibid*.

<sup>149</sup> *ibid*.

extends to corporate governance and incentives, organisational systems, competition and anti-trust, 'fit and proper' requirements and professionalism, and more recently 'product governance'<sup>150</sup>.

The European Regulation EMIR developed some minimum conduct of business standards for CCPs. The standards are especially illustrative, because they attend to the systemic importance of CCPs. According to the regulation, 'CCPs shall act fairly and professionally in accordance with the best interests of such clearing members and clients and sound risk management'<sup>151</sup>. It makes clear how multiple interests converge in the CCP, and how regulators seek to make CCPs conduct themselves in a manner that contributes to the stability of the market. To develop the conduct of business rules, EMIR establishes the participation requirements - the criteria that CCPs will apply when admitting clearing members, which are not only limited to avoid discrimination, but also 'to ensure that clearing members have sufficient financial resources and operational capacity to meet the obligation arising from the participation in a CCP'<sup>152</sup>. The requirements illustrated in EMIR are the minimum parameters to be applied by the CCPs; however, national regulators and CCPs are able to strengthen those requirements. The monitoring of compliance of these financial resources and operational capability is controlled by the subsequent and periodic assessment conducted by the CCP, at least once a year.

Similarly, in order to avoid the excessive concentration of risks, those clearing members that clear transactions on behalf of their clients shall gather all

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<sup>150</sup> Product governance. 'MiFID II's direct intervention in both the manufacturing and distribution of financial instruments and responsibility for product governance marks a significant departure from MiFID I. Product governance obligations operate as distinct obligations that apply without prejudice to any assessment of appropriateness or suitability that is required during the sales process. Looking at those obligations, in Recital 71, Art 16 and Art 24, the MiFID II Directive requires firms to identify and understand the clients to whom products and services are to be provided and, when manufacturing financial instruments, ensure that the needs of that target market are identified, understood and reflected within the product's design.' Alix Prentice and Caroline Bystrom, 'MiFID II: regulating investment firms from the inside out' (2015) 6 JIBFL 364B.

<sup>151</sup> Art 36 EMIR.

<sup>152</sup> Art 37 EMIR.

the relevant information to identify, monitor and manage the potential concentration of risk. Although the rules of access to information and the monitoring task are among the CCPs' obligations, the clearing members remain responsible for ensuring that clients comply with their respective obligations.

In the event that the initial criteria are not being met by clearing members, the CCP shall have in place 'objective and transparent procedures for the suspension and orderly exit'<sup>153</sup> of those clearing members. The orderly exit of a clearing member is vital for the CCPs to ensure the continuity of services and should be as little disruptive as possible.

Finally, the CCP is allowed to impose some additional obligations on its clearing members. For instance, to participate in auctions of a defaulting clearing member's position. The only limitation to such additional obligations is not to restrict participation to certain categories of clearing members.

The conduct of business rules of EMIR also make reference to the transparency<sup>154</sup> that CCPs and their clearing members shall observe. Article 38 sets out that there must be public disclosure regarding the prices and fees associated with the services provided, the risks associated with those services, the volumes of the cleared transactions for each class, the operational and technical requirements relating to the communication protocols with third parties, and of any breaches by clearing members of the criteria and requirements

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<sup>153</sup> Art 37 EMIR.

<sup>154</sup> 'The rationale for EU regulation of derivatives was set forth in a Communication from the Commission, ensuring efficient, safe and sound derivatives markets, 3 July 2009: 'Bear Sterns [sic], Lehman Brothers and AIG were important players in the OTC derivatives market, either as dealers or users of OTC derivatives, or both. The trouble they experienced originated outside the OTC derivatives markets, it entered the derivatives market via the CDS written by these three institutions and, because of these institutions' central role in all OTC derivatives markets, it spread beyond CDSs and affected the world economy. The opaqueness of the market prevented, on the one hand, other market participants from knowing exactly what the exposures of their counterparties were to these three entities, which resulted in mistrust and in the sudden drying up of liquidity'. Schuyler K. Henderson, 'The new regime for OTC derivatives: central counterparties Part 1' (2011) 4 JIBFL 207.

to participate in the CCP. All this information is available to national competent authorities and ESMA. The access to better information is one of the fundamental objectives of the OTC derivatives market reform; the accuracy and timely access to relevant data allow authorities to effectively supervise the operation of the CCPs, as well as to ensure compliance to rules, and to use of early intervention mechanisms.

In Article 39, EMIR approaches the concepts of segregation and portability<sup>155</sup>. This provision imposes an obligation to CCPs to ‘keep separate records and accounts that shall enable [the CCP] to distinguish in accounts with the CCP the assets and positions held for the account of one clearing member from the assets and positions held for the account of any other clearing member and from its own assets’<sup>156</sup>. The rationale of segregation<sup>157</sup> is to have transparent and up-to-date information regarding the financial capability of the CCP and each of its clearing members to perform its obligations. With that information, the control on the volume of transactions and the subsequent risks involved is more effective, resulting in a constant control to avoid any concentration of risks. As ruled in Article 39 of EMIR, the requirement to distinguish assets and positions with the CCP taken into account is satisfied where: ‘ a) the assets and positions are recorded in separate accounts, b) the netting of positions recorded on different accounts is prevented, c) the assets covering the positions recorded

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<sup>155</sup> ‘The second requirement concerns the enforceability of portability. (...) The CRR addresses portability inconsistently. Article 305(2)(b) specifies that the laws, regulations, rules and contractual arrangements should facilitate portability whereas the duplicative and potentially contradictory Article 303(4) (b) specifies them to ensure portability. Regardless, the CRR seems to impose a different threshold than the Interim BCBS Standards and the Final BCBS, both of which use the words ‘highly likely’ . Tariq Zafar Rasheed, ‘We live in regulatory times: the regulatory capital implications for cleared derivatives’ (2014) 6 JIBFL 385.

<sup>156</sup> Art 39 EMIR.

<sup>157</sup> ‘The segregation levels stipulated by EMIR relate to “legal” segregation. In the event that any particular party becomes insolvent, it should be possible to distinguish the positions and assets attributable to that and other parties by reference to the records and accounts of the CCP and/or Intermediary CM. Legal segregation does not necessarily mean that collateral is also “operationally” segregated. (This would be the case if collateral were actually held in operationally segregated accounts rather than just by way of account administration.) As discussed later on in this article, “legal” segregation could be defective if the records of the CCP and/ or the Intermediary CM are incorrect or disputed’. Tariq Zafar Rasheed and Bas Zebregs, ‘Can a house divided between itself stand? Segregation in derivatives clearing’ (2012) 5 JIBFL 293.

in an account are not exposed to losses connected to positions recorded in another account'<sup>158</sup>.

Moreover, the concept of assets refers to the collateral held to cover positions and, importantly, it covers 'the right to the transfer of assets equivalent to that collateral or the proceeds of the realization of any collateral'<sup>159</sup>. This rule allows clearing members to freely move their assets in the normal course of business; what is required is that the value of such collateral remains enough to guarantee the positions and exposures of the clearing member<sup>160</sup>. Further regulation about collateral requirements is developed in Article 46 of EMIR.

The concept of segregation is vital for the CCPs' functioning as the intermediary expected to provide better risk-management in the OTC derivatives market. On the one hand, the segregation obligation applied to CCPs will allow them to clearly comply and remain compliant with the financial requirements to provide clearing services. This is a core tool to ensure the continuity of services and the safety and soundness of the CCP. On the other hand, the segregation empowers the CCP, and in turn supervisors, to monitor and control the level of compliance of the clearing members, and to assess rigorously the level of exposure, positions and assets each member is allowed to have.

EMIR distinguishes between two types of segregation. The '*Omnibus client segregation*' operates when the CCP 'keeps separate records and accounts enabling each clearing members to distinguish in accounts with the CCP the assets and positions of that clearing member from those held for the accounts of its clients'<sup>161</sup>. The '*Individual client segregation*' works when the CCP 'offers

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<sup>158</sup> Art 39 (9) EMIR.

<sup>159</sup> Art 39 (10) EMIR.

<sup>160</sup> 'In order to accurately determine its exposures in respect of the Eligible Transactions that are cleared with it, a CCP depends on its ability to obtain market prices for such Eligible Transactions, as well as on its internal models'. Tariq Zafar Rasheed 'Rings to bind them all': central counterparties and collateralisation issues' (2011) 6 JIBFL 331.

<sup>161</sup> Art 39 EMIR.

separate records and accounts enabling each clearing member to distinguish in accounts with the CCP the assets and positions held for the account of other clients'<sup>162</sup>. After the client has received all the relevant information and advice by the clearing member, it can choose between the two types of segregation offered by the CCP.

A third element of the consumer protection concerns the management of information and assets. CCPs are obliged to disclose publicly the prices and fees associated with the clearing services, the risks associated with those services, the volumes of the cleared transactions, the operational and technical requirements relating to the communication protocols with third parties, and of any breaches by clearing members of the criteria and requirements to participate in the CCP. Timely access to complete information ensures that clearing members are sufficiently informed when deciding the CCP in which they will clear their OTC contracts, as well as trace any changes in the functioning of the CCP to which they belong.

Furthermore, according to the segregation requirement, CCPs are compelled to keep separate records and accounts for each clearing member. A clear and supervised system of segregation benefits the clearing member, in the sense that the CCP is able to distinguish in accounts with the CCP the assets and positions held for the account of one clearing member from the assets and positions held for the account of any other clearing member and from its own assets. Such a separation of assets offers a layer of protection for clearing members' assets when the CCP is in financial distress, in particular in a resolution event. Segregation rules help to control the functioning of the CCP as provider of better risk management, and contribute to ensuring the continuity of clearing services, which is in the interest of clearing members.

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<sup>162</sup> Art 39 EMIR.

To sum up, EMIR contributes to the conduct of business regime by developing the content of consumer protection in terms of the obligation CCPs to act fairly and professionally, in accordance with the ‘best interest of clearing members’. The conduct regulator in the UK would have the first task to explain what is the best interest of clearing members and clients, and how it is articulated with the systemic role CCPs have in the OTCDM. In doing so, the conduct regulator is expected to identify foreseeable conflicts of interests and how they could be solved. Moreover, and in line with the transparency that should rule the functioning of CCPs, the conduct regulator should ensure the existence and compliance of objective procedures for the suspension and orderly exit of clearing members.

#### **3.4.1.3.2 Competition Regime**

Besides the broad category of consumer protection, competition is also a highly relevant topic to consider in the regime of conduct of business. Indeed, the FCA has the mandate to promote effective competition when addressing the consumer protection objective<sup>163</sup>. In line with this mandate, the conduct of business regime for CCPs in the OTC derivatives market has the potential to help solve issues regarding ‘unfair contract terms’ and anti-competitive practices.

In pursuing this objective, the FCA conducted the wholesale sector competition review<sup>164</sup>. Although it is not a regulatory priority, the FCA recognises some of the competition issues that might affect the functioning of the OTCDM. In particular, the review mentions that the vertical integration model of CCPs and trading venues may create barriers to entry/expansion for stand-alone

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<sup>163</sup> The Bank of England and Financial Services Act 2016 takes further steps to promote diversity and competition in the **banking sector**, by ensuring that regulators take into account different business models as part of their competition objectives.

<sup>164</sup> In June 2014, the Chancellor launched the Fair and Effective Markets Review with a focus on conduct in fixed income, commodity and currency wholesale markets. In July 2014, the FCA launched a review of competition in the wholesale sector to gather views on areas that might benefit from further investigation through an in-depth market study. FCA, ‘Wholesale sector competition review 2014-15’ (n 121).



providers trying to compete, and the reduction in the number of clearing providers and the impact they have in terms of fair, reasonable and transparent access to clearing services. Moreover, the review emphasises one of the most notorious features of CCPs market - this is the high level of concentration. The small number of CCPs and, in turn, the concentration of certain instruments that can be cleared facilitates the emergence of monopolistic practices, such as price controls and restrictions to market entry.

Similarly, the FCA accepts that increased competition between CCPs could lead to competition in risk management techniques, which in turn could affect financial stability. For instance, as users select CCPs based on the instrument traded, the membership requirements and the available liquidity<sup>165</sup>, CCPs might seek to present themselves as more attractive by reducing the margin requirements. The FCA believes that EMIR provides the solution to some competition issues when it sets out that access between CCPs and trading venues should be provided on a non-discriminatory basis for OTC derivatives. Nonetheless, whilst this provision of EMIR might solve the vertical integration<sup>166</sup> problem affecting the links between trading venues and CCPs, it does not solve the competition issues involving the practices CCPs might adopt to gain more clearing members. Therefore, there are some areas that could be further regulated by national conduct authorities.

Furthermore, there is some concern regarding the access to clearing services by clearing members and their clients. Some respondents of the review emphasised that there are few options of OTC clearing in the UK. The limitation in number of entities that can offer clearing services in the OTCDM is attributable to the regulation in place. The regulatory requirements for the recognition and authorisation of CCPs in EMIR and domestic legislation, but also the capital requirements imposed in Basel III, mean that only large financial

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<sup>165</sup> A survey conducted by COO Connect Peer Group Network and Derivative Consulting. The criteria fund managers should use to choose the CCP that clears their derivatives shows that the most important factors are the Products and Services (e.g. Portfolio Compression), Asset Safety (e.g. collateral segregation) and counterparty risk management. COO Connect Breakfast Briefing, London 20<sup>th</sup> October 2015.

<sup>166</sup> Vertical integration happens when two firms in different stages of a supply chain merge. An example of this would be the merger of a CCP with a trading venue.

institutions will be able to become clearing members. Similarly, there are potential issues arising from indirect clearing. Indirect clearing - also known as 'client clearing' - is a method that allows OTCDM participants to benefit from the clearing services, without becoming clearing members themselves. In particular, the legal and operational challenges of risk management in the chain of clearing and the number of clearing members and CCPs that will be able to provide clearing services to clients. The uncertainty is increased by the upcoming European regulation<sup>167</sup> and the impact it will have.

Therefore, it is important for UK authorities to ensure that there are enough arrangements to guarantee (the) access to clearing<sup>168</sup>. This can be achieved by expanding direct access to CCPs, which in turn reduces concentration of risk and enhances competition, and through safe and efficient indirect clearing rules.

One additional consideration regarding the increase of access to clearing is to acknowledge the impact it might have for CCPs. CCPs are entities subject to a progressive pressure to increase the number of products they clear. Indeed, one of the regulatory reforms coming from MiFID II, expected to be in force by January 2017, is precisely the implementation of a policy of open access to CCPs in the OTCDM. That is to broaden the spectrum of products that will be centrally cleared and to facilitate 'client-clearing'. Under MiFID II, CCPs will have to open up to any participant that meets the minimum criteria. The rules are intended to introduce a level playing field for securities trading and clearing in Europe. However, the concern is whether, in an 'open-access environment', CCPs are sufficiently robust to handle a potential crisis.

Some have compared this expansion of CCPs clearing in the OTCDM

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<sup>167</sup> On 2<sup>nd</sup> October 2015 ESMA informed the delay in the issue of the RTS regulatory technical standards (RTS) on indirect clearing for OTC derivatives. ESMA Press Release [http://www.esma.europa.eu/system/files/2015-1498 - letter to european commission - technical standards on indirect clearing under emir and under mifir.pdf](http://www.esma.europa.eu/system/files/2015-1498_-_letter_to_european_commission_-_technical_standards_on_indirect_clearing_under_emir_and_under_mifir.pdf) accessed 13<sup>th</sup> October 2015.

<sup>168</sup> BIS, 'The macro financial implications of alternative configurations for access to central counterparties in OTC derivatives market' (Paper Committee on the Global Financial System CGFS Papers N. 46, November 2011).

with the phenomenon faced by Rating Agencies before the GFC. Pre-crisis Rating Agencies faced pressure to increase their product coverage<sup>169</sup> because of the privileges of official ratings. In the case of CCPs, despite the fact that the open-access policy of MiFID II is said to introduce a real competition to the clearing services, it should not be ignored that it also puts high pressure on CCPs. The expansion of clearing services requires paying careful attention to the risks a CCP is in the position to manage.

Although the FCA recognises the aforementioned competition issues, it decided to take a passive approach about them. In the review, the FCA explains that many of these competition issues are dependent on the implementation of EMIR and complementary legislation. Thus, the real effects of EMIR cannot be identified in the current status of the market. The market study conducted by the FCA contributes to support the argument in favour of designing a conduct of business regime that includes competition rules. There are competition issues arising in the CCPs market that can affect the functioning of the market, and therefore need to be considered by UK regulators. As explained, some of the foreseeable effects that EMIR will have in terms of competition of CCPs in the OTCDM can greatly affect the functioning of the market in terms of access to clearing and efficiency of risk management techniques. Therefore, UK regulators are in time to design the regime and to provide some clarity regarding the authority that would carry out the regulation and supervision of this matter.

This research emphasises the importance of clarifying the authority that will oversee competition of CCPs in the OTCDM. According to the review, several competition concerns are not regulated by the FCA, and would be regulated by the Bank of England<sup>170</sup>. However, this straightforward conclusion

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<sup>169</sup> In 2006 Moody's reported that structured products (largely CDOs) accounted for 44% of their income, for Fitch the proportion was 51%. Richard Tomlinson and David Evans, 'The Ratings Charade' (Bloomberg Markets, July 2007) 51. [http://www.journalism.columbia.edu/system/documents/524/original/2008\\_Evans\\_The\\_Ratings\\_Charade\\_MAG\\_July\\_2007.pdf](http://www.journalism.columbia.edu/system/documents/524/original/2008_Evans_The_Ratings_Charade_MAG_July_2007.pdf) accessed 29<sup>th</sup> February 2016.

<sup>170</sup> 'There are certain elements of market infrastructure that were referred to by respondents that are not directly regulated by the FCA. For example, the Bank of England is responsible for, amongst other things, the oversight of central CCPs, and settlement and payment systems and the potential impact of intervening in these cases may be reduced.' FCA, 'Wholesale sector competition review 2014-15' (n 121) 50.

has some shortcomings in practice. Despite the fact that the Bank of England is the leading supervisor of CCPs, it is not clear how the Bank would act as a competition regulator. So, if CCPs engage in any anti-competitive practice, the regulation applicable would be the general competition regime<sup>171</sup>, enforced by the Competition and Markets Authority (CMA)<sup>172</sup> and not the BoE.

In this regard, this research argues that the FCA is in the best position to become the authority responsible for the oversight of competition of CCPs in the OTCDM. Firstly, the FCA, as conduct regulator, is related to the market and concerned with OTCDM competition issues due to its supervisory role of clearing members and their clients. The study contained in the Wholesale Markets Competition Review demonstrates that some of the competition concerns tend to involve CCPs, clearing members and clients all at once. Thus, to assign the function of supervision of competition of CCPs to the FCA would prevent unnecessary overlaps between the FCA and the CCPs competition supervisor in the event of anti-competitive practices. Secondly, the FCA has the operational objective of promoting effective competition, and in doing so counts with new statutory enforcement powers and a Memorandum of Understanding with the Competition and Markets Authority (CMA). Under the Financial Services (Banking Reform) Act 2013, the FCA is to become a concurrent competition authority from 1<sup>st</sup> April 2015. The concurrency<sup>173</sup> means that the FCA will have the power to enforce the competition prohibitions against anti-competitive agreements and abuse of a dominant position contained in the Competition Act 1998. Moreover, the Enterprise Act 2002 allows the FCA to carry out market studies and refer markets to an independent panel within the CMA for detailed investigation. Alongside these powers, the MoU between the

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<sup>171</sup> Competition Act 1998 (CA 1998); the Financial Services and Markets Act 2000 (FSMA); the Enterprise Act 2002 (EA 2002); the Enterprise and Regulatory Reform Act 2013 (ERRA 2013); the Financial Services (Banking Reform) Act 2013; The Competition Act 1998 (Concurrency) Regulations 2014; and the CMA's Guidance on concurrent application of competition law to regulated industries.

<sup>172</sup> The predecessor of the CMA is the Office of Fair Trading (OFT) that had a MoU with the FSA to coordinate the supervision of competition in financial markets.

<sup>173</sup> As the concurrent decisions have been limited in number, alongside changes in the law, a UK Competition Network (UKCN) has been set up with regular meetings to encourage discussions between the concurrent regulators. The UKCN's mission is to promote competition for consumers' benefit and prevent anti-competitive behaviour.' <https://www.fca.org.uk/news/new-competition-powers-what-do-they-mean-for-the-financial-services-industry> accessed 13<sup>th</sup> October 2015

FCA and the CMA seeks to maximize the effectiveness of both authorities in making financial services markets work well for consumers<sup>174</sup>. Thus, this research argues that the new enforcement powers and framework of cooperation put the FCA in a privileged position to oversee competition issues of CCPs.

Finally, the FCA already has a conduct of business regime applicable to recognised clearing houses that operate in the exchange-traded market. Although the central clearing (CCPs service) in the OTCDM is focused on credit risk management whilst in the exchange market, CCPs' primary role is to standardise and simplify operational processes; the experience the FCA has in supervising in the exchange market can be useful in the OTCDM.

Additionally, the benefits of regulating the competition of CCPs in the OTCDM are not limited to 'conduct of business' matters, or exclusively linked to consumer protection. Beyond these direct effects of a competition regime, well-designed and enforced regulation can contribute to control, though not solve, the 'too big to fail'<sup>175</sup> character that CCPs have. The role of the competition regime is necessarily secondary but useful when integrated with public policy in pre and post-crisis periods<sup>176</sup>. It contributes to maintain as much as possible the fair conditions of access and participation of the market where 'too big to fail institutions' are implicitly allowed to interfere in the functioning of the market. In the case of CCPs, the interference is the result of the systemic relevance they have in the OTCDM. Such a privileged position indirectly allows CCPs to impose limits to market access, to limit their liability regime, to impose 'unfair' contract terms, and so on. Therefore, the role of competition law can complement

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<sup>174</sup> Memorandum of Understanding between the Competition and Markets Authority and the Financial Conduct Authority 12 June 2014. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/325666/MoU\\_FC\\_A-CMA\\_Final.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/325666/MoU_FC_A-CMA_Final.pdf) accessed 13<sup>th</sup> October 2015.

<sup>175</sup> 'However, as various alternative regulatory strategies are considered to address the problem [referring to the too big to fail], antitrust law has emerged as having at least some potential to promote a healthier economy that relies less on the economic stability of a small number of very large firms. There is renewed interest in reinvigorating antitrust law to address the too-big-to-fail problem by invoking its original underlying policy concerns.' Jesse W. W. Markham, Jr, 'Lessons For Competition Law From The Economic Crisis: The Prospect For Antitrust Responses To The "Too-Big-To-Fail" Phenomenon' (2011) 16 Fordham J. Corp. & Fin 2.

<sup>176</sup> 'Antitrust enforcement is not a luxury reserved for more prosperous times'. Maurice E. Stucke, 'New Antitrust Realism' (2009) Global Competition Policy Magazine, Jan, 20.

the regulation in place by enabling<sup>177</sup> a fair conduct of business, which protects CCPs counterparties but still enhances the robustness and resilience of the CCPs in the OTCDM.

### 3.5 Conclusion

The introduction of CCPs to the OTCDM aims to provide better management of counterparty credit risk. This is central in markets, such as the OTCDM, where losses are severe enough to become a channel of contagion and be the potential source of systemic risks. CCPs reduce and mutualise the credit risk. CCPs are said to increase market safety and integrity by mitigating and managing credit, liquidity and operational risks. The functioning of CCPs relies heavily on the orderly management of a member's default and of other sources of losses. Moreover, it is argued that the intermediation of CCPs contributes to address information asymmetries and increases efficiency of the market. Similarly, the introduction of mandatory central clearing through CCPs brings some benefits in terms of supervision of the OTCDM. This is because CCPs contribute to enhance standardisation of OTC derivatives transactions and have an active role in increasing transparency of the OTCDM.

The downside, however, is that CCPs are assuming a position of special relevance in each transaction and in the market. They are Systemically Important Financial Institutions (SIFIs). CCPs are highly interconnected and hereby their failure might prompt negative externalities. Moreover, CCPs in the OTCDM are characterised by lack of substitutability when one of them ceases to provide services. These concerns surrounding the functioning, safety and soundness of CCPs explain the content of the post-GFC regulatory reform. In particular, the special focus on strengthening the prudential regulation of CCPs.

The UK regime - in line with international regulatory agenda - is heavily seated in the prudential supervision of CCPs. The reform in the UK started with

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<sup>177</sup> Arguing that regulation allows freedom instead of restricting it. Joseph William Singer, *No Freedom without Regulation: The Hidden Lesson of the Subprime Crisis* (Yale Press, September 2015).

the introduction of a new approach to financial regulation that empowered regulators to look beyond compliance and to supervise proactively. Such an approach combines some elements of risk-based regimes and places the judgement of expert supervisors at the centre of regulation. Regarding the supervision of CCPs, this research argues that the competent authorities are the Bank of England and the Financial Conduct Authority.

The Bank of England, in coordination with its macro-prudential supervision, carries out the micro-prudential supervision of CCPs. The Bank's aim is to ensure that CCPs' rules and policies are designed and applied to monitor, manage and mitigate risks, especially systemic risks. Moreover, in line with the CPMI-IOSCO Principles for Financial Market Infrastructures, the Bank has set out supervisory priorities, anticipating that its supervisory effort is based on its assessment of where risks to financial stability are greatest. This judgement and assessment is based on a risk review conducted by supervisory staff and reviewed by senior bank officials. Thus, some elements of risk-based and judgement-based regulation can be identified in the Bank's approach to CCP's supervision.

The influence of the risk-based approach to regulation is also revealed in the enforcement powers of the Bank of England. In particular, the decision-making committees within the Bank rely on a categorisation of the FMIs according to the level of risk they pose to financial stability in the event of disruption or failure. The classification indicates that the Bank is implementing a risk-based approach to regulation in the sense of prioritizing the regulatory actions according to the level of risk of regulated firms. However, the adoption of risk-based approach is incomplete. The findings of this research suggest that the UK regime for CCPs does not fulfil what would be expected if a coherent risk based approach were taken.

Along with the rules contained on EMIR, the FSMA 2000 part XVIII regulates CCPs, entities subject to the recognition requirements as Recognised Clearing Houses. This chapter explored the provisions in EMIR related to CCPs, prudential regulation, conduct of business and organisational requirements.

Moreover, it highlighted the Bank of England's system of rules and progress regarding the management of credit, liquidity and operational risks.

The Bank's supervisory regime seeks to achieve the robustness, safety and soundness of CCPs by means of prudential supervision. However, other areas, such as the conduct of business regime, have not been considered. The implementation of a risk-based approach in the CCPs' regime affects the effectiveness of the UK regulation and supervision. This 'fracture' consists of breaking the balance between the two stems of risk-based regimes: prudential regulation and conduct of business. As a result, the UK does not have a coherent conduct of business regime for CCPs in the OTCDM and the only rules are those included in EMIR.

The problem concerning the lack of a conduct of business regime for CCPs goes beyond the lack of design; it also affects the exercise of enforcement powers. Although it seems that the Bank of England is aware that conduct of business should be part of the regime of CCPs, the standards of conduct are not an area that poses a significant threat to the Bank's regulatory objectives. Moreover, there is a misinterpretation of the FCA's mandate. It has been wrongfully understood that the Bank of England is the only regulator of CCPs. Hence, it is not clear whether the Financial Conduct Authority carries out the conduct of business, or whether the Bank of England could sanction a CCP for the breach of a conduct of business rule.

Going beyond the critique, this chapter presented some considerations about the role that the FCA should have, the importance of the design and implementation of a conduct of business regime for CCPs, and the elements that such a regime should include. A conduct of business regime for CCPs would help to solve some of the issues rising from the contractual arrangements between CCPs and Clearing Members (CMs); arrangements that until now are exclusively ruled by CCPs' rulebooks and contracts. There are certain elements of that relationship that could be overseen by means of conduct of business rules. In particular, the chapter emphasised the need to design a consumer protection regime that includes CMs. The consumer protection regime would help to correct



the imbalances in the relationship between CCPs and CMs. It also would safeguard CMs from unfair practices, strengthen the rules of management of information and assets, and would be the opportunity to further develop the conduct rules contained in EMIR, including segregation and portability rules. In doing so, the conduct regulator would explain how CCPs have to act fairly and professionally, in accordance with the best interest of clearing members and their clients, and how it is articulated with the systemic role of CCPs in the OTCDM.

Similarly, a conduct of business regime would be central to solving issues regarding competition among CCPs. The regime would help to solve issues concerning ‘unfair contract terms’ and anti-competitive practices. There are several competition issues that need to be regulated. For instance, how increased competition among CCPs could lead to competition in risk management techniques, which in turn could adversely affect financial stability. Also, the extent to which the current regime limits the access to clearing services by CMs and their clients. Here, the role of UK regulators could be to ensure that there are enough arrangements to ensure broader access to central clearing without sacrificing the robustness of CCPs and their ability to manage financial distress scenarios. Thus, the rationale is that the design and implementation of competition rules and clarity about the competent authority would enable a fair conduct of business, which benefits CCPs’ counterparties and enhances the robustness of CCPs in the OTCDM.

## **Chapter 4**

### **Fractures: Insufficient legal framework underpinning CCPs' operations and Inexistence of a Special Resolution Regime for CCPs**

#### **4.1 Introduction**

The fractures affecting the regulation and supervision of the UK regime of CCPs in the OTCDM go beyond the lack of conduct of business explained in Chapter 3. This chapter explores two more fractures: the insufficient legal framework underpinning CCPs' operations and the inexistence of a special resolution regime for CCPs. Both fractures of the regime exemplify the argument defended in this research. This is that, due to the adoption of a risk-based approach to regulation, UK regulators have focused their attention and regulatory actions on the most urgent needs of the market - ensuring the safety and soundness of CCPs in the OTCDM - whilst overlooking other areas of concern that could affect the functioning and robustness of CCPs, and thereby the market. Thus, the use of risk-based regulation is creating 'manufactured risks'.

The first part of the chapter explores the insufficient legal framework underpinning CCPs' operations. The prioritization of risks and regulatory actions has led regulators to abandon the design and implementation of rules to govern the contractual relationship between CCPs and clearing members (CMs). In order to explain this fracture, the chapter addresses several questions concerning the contractual provisions governing the CCP-CMs relationship. It explains how CCPs' rulebooks limit the liability of CCPs. It questions how several contractual provisions limit the possibility of CMs, and indirectly CMs' clients, to enforce their rights. Moreover, it explains the segregation and portability, as has been disclosed by the CCPs operating in the UK. The chapter presents the debate about the shortcomings of the 'legal segregation' included in EMIR, and how they could be overcome with complementary UK regulation. Finally, it argues for the recognition of the existence of a Duty of Care applicable to CCPs. It explores the content of the duty and the issues it would help to solve. It also identifies the drawbacks of the proposal. In particular, it denotes that there is the

need to reform Section 291 of the FSMA 2000 and anticipates the difficulties it would face to be recognised in English Courts.

The second part is devoted to explain another fracture of the UK regime. This is the inexistence of a special resolution regime for CCPs. Although the prudential supervision of the Bank of England is focused on ensuring the safety and soundness of CCPs, priority has been given almost exclusively to the development of loss allocation and recovery rules. During the first years of the regime, the Bank has been reluctant to recognise that CCPs might fail, and thereby it has not designed a regime to rule on the resolution of CCPs. This approach overlooks the fact that a core feature of a stable financial system requires recognising that all financial institutions are resolvable, including those that are systemically important. The discussions in this part attempt to throw some light on the importance of key aspects to be considered in the resolution of CCPs. It argues the importance of designing a different regime to the one of the Banking Act 2009, which is currently applicable to CCPs. To this end, it calls regulators to recognise that CCPs' failure is a possibility. It addresses the question of how a special resolution regime for CCPs would look like. Then, it highlights certain shortcomings that such a regime might have concerning the exercise of CMs and CMs clients' rights, and financial stability.

#### **4.2 Insufficient legal framework underpinning CCPs' operations**

The second fracture explores the areas of concern regarding the legal framework governing the relationship between CCPs and their clearing members (CMs). The discussion is part of a larger concern regarding certain provisions of CCPs' rulebooks that govern almost exclusively the relationship between CCPs and CMs. The content of such rulebooks is, except from the risk-management part, left to the autonomy of CCPs. Regulators do not control a large part of the contractual content, nor how obligations should be performed under such terms. Even some clauses that might not be considered fair to CMs and CMs' clients are seen as acceptable by the regulator, because the priority is to ensure the

‘robustness’ of the CCP<sup>1</sup>. As a result, CCPs have a high level of discretion when performing their obligations, which in turn diminishes CMs and CMs’ client rights and opens sources for potential litigation. Although this research accepts that any contractual relationship might be contentious, it argues that regulators can mitigate the sources of dispute by regulating certain contractual provisions that clearly unbalance the relationship between CCPs and CMs. The regulation of contractual matters could complement the protection of CMs and clients as consumers of CCPs’ services. Therefore, this second fracture is not limited to argue against the ‘abusive or unfair’ contractual clauses, but also seeks to emphasise the importance of considering the existence of a duty of care predicable of CCPs in the performance of their contractual obligations.

Furthermore, this issue relates to the compliance with one of the PFMI, the principle of legal basis. According to this principle ‘*An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions*’<sup>2</sup>. The management of legal risk and the consequences in terms of certainty and predictability are at the core of the CCPs’ soundness<sup>3</sup>. Hence the BoE, whose supervision is guided by the PFMI, is bestowed to issue legal guidance to illustrate the content of the duty of care expected from CCPs, as well as to control the content of potentially ‘abusive’ contractual terms.

#### **4.2.1 Regulation of CCPs contractual relationships**

The role of CCPs in the OTCDM is to provide better credit risk management. In performing their functions, they act according to a legal framework that controls their functioning. The UK regime, in line with international regulation, is focused on ensuring the robustness of CCPs. This is to ensure their resilience and most importantly, to preserve the continuity of services even in the event of CCPs’ financial distress. Although this area of focus of the regulation and supervision of CCPs is predominant in the post-GFC

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<sup>1</sup> Interview Mr. Paul Brione Head of Central Counterparty Supervision, Bank of England,

<sup>2</sup> CPMI-IOSCO Principles of Financial Market Infrastructures (Hereinafter CPMI-IOSCO Pfmi).

<sup>3</sup> *ibid* 27.

regulatory reforms, this research argues that the robustness of CCPs is not limited to (the) prudential matters. According to the PFMI, a CCP is robust not only when its stability contributes to the stability of the system, but also when its functioning agrees with the robustness of its clearing members (CMs) and clients. In this sense, this work argues against the notion that making CCPs safe and sound justifies the imposition of excessive restrictions on the CMs' rights and indirectly CMs' clients' rights.

The PFMI is the guide for the regulation and supervision of CCPs in the OTCDM. The first principle requires regulators to have in place a well-founded, clear, transparent, and enforceable legal basis for each material aspect of FMI's activities<sup>4</sup>. The principle of legal basis seeks to provide the foundation to clearly define from the outset the set of rights and obligations of the CCPs, CMs and the CMs' clients<sup>5</sup>. The aim is for national laws to govern all the CCPs' rules, procedures and contracts, so that they provide a high degree of legal certainty.

The UK regime of CCPs in the OTCDM sufficiently regulates areas as netting arrangements, enforceability of members' default and recovery. Therefore, those are not analysed in this section. Instead, this section explains some of the contractual issues that are absent from the current regime. Those contractual issues will be discussed in this research according to the legal basis principle that should guide the regulation of CCPs, in line with the PFMI. The areas that pose particular concern are the limitation of CCPs' liability related to management of CMs' positions, assets and value related to collateral, and the content of the duty of care that would be expected from CCPs when performing contractual obligations. The discussions presented in this section are an example of the inexistence of rules protecting CMs and CMs clients' rights from the imposition of unfair contract terms or from the inadequate performance of CCPs' obligations.

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<sup>4</sup> *ibid.*

<sup>5</sup> *ibid.*

In order to explain this fracture, the next sections address questions about how the relationship between CCPs and CMs is regulated. In particular, the analysis of the clauses that show most prominently the dominant position of CCPs. It then characterises CCPs' obligations related to the management of assets and positions of CMs, the requirements of segregation and portability created by EMIR and the potential issues they raise. Moreover, this section discusses whether there is or should be a Duty of Care applicable to the CCPs performing their contractual obligations. It then argues that the recognition of the Duty of Care would balance the contractual relationship between CCPs and CMs, consumer protection and would strengthen the obligation of CCPs to act 'fairly and professionally in accordance with the best interests of such clearing members and clients and sound risk management'<sup>6</sup>.

#### **4.2.1.1 The contractual relationship between CCPs and Clearing Members**

The UK regime of CCPs in the OTCDM, including EMIR<sup>7</sup>, regulates amongst other areas the clearing obligation, the type of contracts subject to clearing, reporting of transactions, the process of authorisation and recognition of CCPs, the minimum requirements clearing members should meet to be part of CCPs and so on. Similarly, the regime imposes some obligations on CCPs and clearing members (CMs) related to segregation and portability of positions and margins. However, the core of the rights and obligations of the contractual relationship between CCPs and CMs is not part of the regime. The task to define contractual arrangements is left completely to the autonomy of the parties involved. Hence, CCPs have drafted rulebooks to rule their contractual relationships. The obligations and rights of CCPs and Clearing Members are contained in the rulebook, together with the Clearing Membership Agreement and any other documentation given contractual force pursuant to the rulebook<sup>8</sup>.

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<sup>6</sup> Art 36 EMIR.

<sup>7</sup> Including Regulatory Technical Standards (RTS) and Implementation Technical Standards of EMIR.

<sup>8</sup> CME Clearing Europe Ltd., 'Rulebook Clearing Rules ch. 2 General Provisions' Last updated: 19<sup>th</sup> December 2015, 35 <http://www.cmegroup.com/europe/clearing-europe/membership/files/CMECE-Rulebook.pdf> accessed 29<sup>th</sup> February 2016.

Therefore, general laws rule the enforceability of the contractual arrangements<sup>9</sup> and courts will decide any related dispute.

As might be anticipated, the content of CCPs' rulebooks is not uniform - each CCP drafts it differently<sup>10</sup>. There are, however, some clauses common to all of them. For instance, the rules regarding the amendments to the content include the consultation proceeding and the subsequent publication. Such provisions allow Clearing Members (CMs), or part of them,<sup>11</sup> to know the amendment in advance and to submit the relevant comments<sup>12</sup>. The CCP has the unilateral right to amend the clearing arrangement. Accordingly, the CCP might decide to cease the clearing of a certain contract or to introduce amendments to contract specification; that is the part of the contract module setting out the terms of a particular type of transaction<sup>13</sup>.

Moreover, CCPs' rulebooks include provisions delimiting the liability of CMs. Those provisions say that CMs are liable for any losses, liabilities, damages and claims, costs suffered by the CCP arising out any breach of the obligations included in the rulebook and clearing membership agreement, or arising out in any contract entered into by the clearing member<sup>14</sup>. Such a liability regime applies excepting the events of bad faith, fraud, wilful default or gross negligence on the part of the CCP. The obligation to indemnify will consider the steps taken by the CM to mitigate the losses. Accordingly, the attribution of liability will follow the general rules of contract law and tort. There is no exemption or limitation to CMs liability, which is the opposite to the clauses of CCPs' liability. The imbalance of the liability regime shows how the clauses of rulebooks privilege CCPs' position to the detriment of CMs' rights.

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<sup>9</sup> Contract Law and Tort Law.

<sup>10</sup> CCPs rulebooks are published in CCPs websites. This research uses the rulebooks of the CCPs authorised in the UK.

<sup>11</sup> 'The Clearing House may consult on a proposed amendment to the Rulebook with only a limited number of Clearing Members if it reasonably considers it appropriate to do so including where, in the Clearing House's reasonable opinion, a proposed amendment will affect a limited number of Clearing Members or in the Clearing House's reasonable opinion, is a limited technical amendment'. CME Clearing Europe Ltd. Rulebook 2.2.3.

<sup>12</sup> CME Clearing Europe Ltd. Rulebook 2.2 Amendments.

<sup>13</sup> CME Clearing Europe Ltd. Rulebook. Rule 2.2.8 and ss.

<sup>14</sup> CME Clearing Europe Ltd. Rulebook. Rule 2.3.

Regarding the liability of CCPs, the rulebook broadly sets the events in which such a liability arises. It starts by delimiting the beginning of the liability to the moment the contract exists. This means that there is no possibility to consider any potential liability arising from the period of contractual negotiations. Although English Law does not recognise a liability in the pre-contractual period<sup>15</sup>, there are some areas that remain debatable<sup>16</sup>. The liability of pre-contractual arrangements might change when a contract is agreed or when the negotiations end with no agreement<sup>17</sup>. In the event where negotiations end with the agreement of a contract, under English law the liability for pre-contractual negotiations is limited to the counterparties will. Hence, in *Investors Compensation Scheme Ltd v. West Bromwich Building Society*<sup>18</sup> (No.1), it was held that “the law excludes from the admissible background the previous negotiations of the parties and their declarations of subjective intent (...)”. However, in *In ProForce Recruit Ltd v. Rugby Group Ltd*,<sup>19</sup> the Court said that the effect of such negotiation arrangements might be considered in the construction of the contractual terms only when parties do not exclude them. In this area, the drafting of CCPs’ rulebooks does not present major concerns.

However, there are other sources of potential liability in the negotiations period for a contract that is void or voidable. For instance, if the content of the negotiations arrangements that might result in liability incited the contract, under certain conditions these arrangements can give the counterparty the right to rescind the contract, or part of it, according to the Misrepresentation Act 1967. There is statutory liability under the Misrepresentation Act 1967 in the event of

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<sup>15</sup> The common law approaches pre-contractual liability as part of contract formation. See H. G. Beale (ed), *Chitty on Contracts* (28th edn, London, Sweet & Maxwell 1999) 2-103 ff; G.H. Treitel, *The Law of Contract*, (14th edn, London, Sweet & Maxwell, 2015) 20.

<sup>16</sup> Paula Giliker, ‘A role for tort in pre-contractual negotiations? An examination of English, French and Canadian law’ (2003) 52 *International & Comparative Law Quarterly*, 969.

<sup>17</sup> ‘In *Regalian Properties plc v. London Dockland Development Corporation* [1995] 1 WLR 212, Rattee J held that there could be no recovery of pre-contractual expenses when a contract did not result between the parties. When parties use the expression ‘subject to contract’ in their negotiations, the parties had accepted that any pre-contract costs were incurred at that party’s own expense’. In contrast, in *Countrywide Communications Ltd. v ICL Pathway Ltd* [2000] CLC 324, Nicholas Strauss QC accepted that, in ‘exceptional cases’ in which the contract failed to materialized, a claimant would be able to recover on quantum meruit for expenditure incurred in anticipation of such contract’. Jill Pole, *Casebook in Contract Law* (OUP, 2014) 79.

<sup>18</sup> *Investors Compensation Scheme Limited. v West Bromwich Building Society* [1998] 1 W.L.R. 896.

<sup>19</sup> *ProForce Recruit Ltd v. Rugby Group Ltd* [2006] EWCA Civ 69 (CA).



intentional, negligent and innocent misstatements. In those events, the affected counterparty can demand for a rescission<sup>20</sup> of the contract and claim damages. Also, there is the possibility of liability in tort for negligence in common law<sup>21</sup>. The negligence is configured when there was a reasonable reliance of the parties on each other and of any evidence of an assumption of responsibility for statements made during negotiations<sup>22</sup>. Thus, when a contract is voided, the benefits of the period of negotiations might be recovered under the principles of the law of restitution<sup>23</sup>.

Therefore, if any of the hypotheses considered before affect the relationship between the CCP and its members, it could be anticipated that the clause of the rulebook limiting the liability to the existence of the contract would be unenforceable.

According to CCPs' rulebooks, the liability of CCPs is restricted to the events of bad faith, fraud, wilful default or gross negligence<sup>24</sup>. These provisions exclude any responsibility for any suspension of services or closure of the CCP, any errors and inaccuracies in any information used by the CCP, any warranties, representations and undertakings which might be implied, any exercise or failure to exercise the discretion or right conferred by the rulebook, any dispute relating

<sup>20</sup> 'Rescission is an equitable remedy subject to a number of bars preventing its exercise. These bars apply to all instances (with the exception of s.2.(2) of the Misrepresentation Act 1967) in which the remedy of rescission is available., e.g. duress or undue influence'. *Halpern v. Halpern* [2007] EWCA Civ 291, [2007] 3 WLR 849. Jill Pole, *Casebook in Contract Law* (n 17).

<sup>21</sup> Negligence is recognised by courts when there is a non-contractual relationship between the parties, and therefore it is possible to assess whether there is a duty of care. The most representative case in this matter is *Caparo Industries plc v Dickman* [1990] 2 AC 605, [1990] UKHL 2, [1990] 1 All ER 568. The case explains the requirements to establish the existence of a duty of care, namely: the harm must be reasonably foreseeable, there must be proximity between the claimant and the defendant, and it must be just, fair and reasonable to impose a duty of care on the defendant.'

<sup>22</sup> Stahis Banakas, 'Liability for Contractual Negotiations in English Law: Looking for the Litmus Test' (2009) *Revista para el Analisis del Derecho*. Barcelona.

<sup>23</sup> *Lipkin Gorman v. Karpnale Ltd* [1991] 2 AC 548, (affirmed in subsequent decisions: see, e.g. *Woolwich Equitable Building Society v. IRC* [1992] 3 All ER 737; *Westdeutsche Landesbank Girozentrale v. Islington London Borough Council* [1996] AC 669; *Kleinwort Benson Ltd v Glasgow City Council* [1998] 1 AC 153), where the House of Lords acknowledged for the first time the existence of an autonomous cause of action in unjust enrichment. Robert Pearce and Warren Barr, *Pearce & Stevens' Trusts and Equitable Obligations* (OUP, 2014) 270.

<sup>24</sup> s 291 of the FSMA 2000 clearly states the liability in relation to recognized body's regulatory functions. The statutory provision limits the liability recognized bodies, among them CCPs. Hence, CCPs 'are not to be liable in damages for anything done or omitted in the discharge of the recognized body's regulatory functions unless it is shown that the act or omission was in bad faith'.

to the validity, existence or terms of any contract, loss<sup>25</sup> or diminution of value of collateral and any contribution, loss of anticipated profit or revenue regardless of whether the CCP has been advised of the possibility of such loss or it could be foreseen. Moreover, any liability of the CCP will be recoverable by the CM limited to the portion of collateral held by the CCP pro-rata to the relevant CM and the related guarantee fund.

The clauses limiting the liability of CCPs are allowed by Section 291 of the FSMA 2000. CCPs are recognised bodies that can delimit their liability only to acts of bad faith and similar occurrences. As will be explained, this regime prevents CMs from exercising their contractual rights when the CCPs are acting negligently. Under the current regime, the performance of CCPs' obligations is not regulated by the general regime of contract law and tort. In order to illustrate how problematic this is in practice, the next sections explore some of the obligations of CCPs in holding and managing CMs' positions, assets and collateral. This research argues for the design and implementation of regulatory guidance related to the standard of diligence and duty of care that CCPs should observe when performing their contractual obligations.

#### **4.2.1.2 CCPs management of assets**

##### **4.2.1.2.1 CCPs holding assets**

According to the terms of the contract between the CCP and CMs, CMs are required to provide collateral by transferring the full ownership of eligible cash or title of eligible securities or eligible precious metals<sup>26</sup>. The transfer of those assets is done directly to the CCP or to the order of the CCP. Hence, when the collateral is in cash, the CCP will deposit it in a Bank Account; such collateral could remain deposited or be invested through an Investment Agent. When the collateral is the title of securities, the CCP will deposit it with a

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<sup>25</sup> Including Major Investment Loss.

<sup>26</sup> CME Clearing Europe Ltd. Rulebook ch 6 Collateral. Rule 6.3. Holding Collateral, 96.

Custodian<sup>27</sup>, or in the case of FS Account, to an FS Custodian. Also with precious metals, which will be deposited with a Settlement Agent for precious metals. In any event, the collateral is held in the name of the CCP, unless otherwise stated. Moreover, the Risk Management Procedure of the CCP rules the deposit of all the assets.

Similarly, CMs are required to keep separate accounts for their client's assets and positions, when they are clearing on behalf of their clients<sup>28</sup>. In these events, the CCP will open accounts (records and books) with administrative purposes only. The intermediation of the CCP does not affect the liability of the CMs for their clients' accounts. Hence, CMs are obliged to verify the quality and the availability of the collateral, and report it to the CCP. Also, the CMs that are firms regulated by the FCA are obliged to manage their clients' assets according to the CASS Client Assets<sup>29</sup>. However, as the FCA does not regulate CCPs in the OTCDM, CASS Client Assets are not applicable to CCPs management of CMs' assets, though it would be helpful to use these or similar rules to guide CCPs' management of assets.

In order to clarify the nature of the contractual positions of CCPs and CMs, it is first important to explain that CMs hold different types of accounts in CCPs. Firstly, when the CM is clearing in its own behalf, the account is called a House Account - the CCP records the positions entered between the CCP and the CM. Secondly, when the CM is clearing on behalf of its clients, the CM has several Clients Accounts. These client accounts might be Omnibus Client

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<sup>27</sup> 'The provision of Custodianship services in the UK is an 'authorisable activity' under the FSMA 2000 to require the authorization the custodian must be both safeguarding and administering assets'. This is in line with MiFID I, that prescribes that investment firms shall make adequate arrangements so as to safeguard clients' ownership rights, especially in the event of the investment's firm insolvency, and to prevent the use of clients' instruments on own account except with the client express consent' Directive 2004/39/EC Art.13 (7). In order to implement the Directive, the FSA issued a special regime 'Client Assets' acronym CASS. CASS requires authorized firms to make adequate arrangements to safeguard ownership rights, minimize loss and effect registration of title into the name of the client' Charles Hewetson and Nicholas Elliotts QC (eds), *Banking Litigation* (3<sup>rd</sup> Edition, Sweet & Maxwell 2011) 185.

<sup>28</sup> CME Clearing Europe Ltd. Rulebook ch 4 Accounts, 81.

<sup>29</sup> The FCA updated the Client Assets Rules on August 2015. CASS Client Assets <https://www.handbook.fca.org.uk/handbook/CASS/1/2.html> accessed 20<sup>th</sup> October 2015.

Account<sup>30</sup>, Individual Client Account<sup>31</sup> and Fully Segregated Client Account. Under the clients' accounts, the obligation of CCPs is to record in their books the positions entered between the CCP and the CM acting on behalf of their clients, and the collateral received by CCPs in relation to such positions. From this structure of accounts, it follows that CCPs face the CM only in relation to registered cleared contracts and receive collateral from the CM only in respect of their positions, even when those positions are held on behalf of CM's clients<sup>32</sup>.

Furthermore, any distribution or interest in respect to assets will belong to the CCP, which in turn will transfer an equivalent distribution or interest to the CM<sup>33</sup>. The exception to this rule is the CM's default. In such an event, any distribution or interest will be withheld by the CCP and, once the declaration of default is issued, they will form part of the portable net sum, single net sum or CCP's default single net sum.

The holding of CMs' assets is ruled by imposing on CCPs the obligation related to segregation and portability<sup>34</sup>. As explained before, EMIR imposes the obligation on CCPs and clearing members to segregate the assets and positions. The 'legal segregation' included in EMIR requires that assets and positions with the CCP are recorded in separate accounts, positions recorded on different accounts cannot be netted and the assets covering the positions recorded in one account are not exposed to losses connected to positions recorded in other

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<sup>30</sup> 'The Omnibus Client Account records positions entered into by a Clearing Member in respect of more than one Client and the types of assets and value of Collateral provided by the Clearing Member relating to that Omnibus Client Account. The Omnibus Client Account has been designed to achieve omnibus client segregation as described in Article 39(2) EMIR'. CME Clearing Europe Limited, 'Account Disclosure' (28th July 2014) <https://www.cmegroup.com/europe/clearing-europe/membership/files/CMECE-Account-Disclosure-Document.pdf> accessed 19<sup>th</sup> October 2015.

<sup>31</sup> This Account records positions entered into by a Clearing Member in respect of a single Client of the Clearing Member and the Collateral, which relate to such positions separately from those of both the Clearing Member and any other Client of the Clearing Member. The Clearing Member can have as many Individual Client Accounts as it chooses. *ibid*.

<sup>32</sup> LCH Clearnet Ltd. **Disclosure for Purposes of Article 39(7) of EMIR**. <http://www.lchclearnet.com/documents/731485/762693/Legal+Implications+Article+39.7> accessed 20<sup>th</sup> October 2015.

<sup>33</sup> CME Clearing Europe Ltd. Rulebook ch 6 Collateral. Rule 6.3. Holding Collateral, 96.

<sup>34</sup> The Omnibus Client Account records positions entered into by a Clearing Member in respect of more than one Client and the types of assets and value of Collateral provided by the Clearing Member relating to that Omnibus Client Account. The Omnibus Client Account has been designed to achieve omnibus client segregation as described in Art 39(2) EMIR.

accounts. As a result, in the insolvency of any counterparty, it should be possible to distinguish the positions and assets attributable to the insolvent and the others.

Nonetheless, there are some issues that are not considered in EMIR and that (the) UK regulators have not clarified. The first source of concern is that the ‘legal segregation’ of EMIR works in an ideal scenario where the records of the CCP and the CM coincide, but if they are different there is a potential source for litigation. Similarly, ‘legal segregation’ does not necessarily mean that collateral is also operationally segregated<sup>35</sup>. Operational segregation means that collateral held in different segregated accounts. Thus, the formality of the segregation obligation is a step towards clearing members and clients’ assets protection, but it does not ensure the actual separation of assets.

The concerns surrounding the legal segregation contained in EMIR have not been further considered in the UK regime for CCPs in the OTCDM. Indeed, information concerning how segregation and portability are working in practice is found in the Accounts Disclosure Documents published by CCPs<sup>36</sup>, and not in a body of regulation issued by UK authorities. This research argues the need for UK regulators to consider the design of a regime of segregation that goes beyond the ‘legal segregation’ and tackles its issues. Firstly, in seeking to avoid that compliance with the segregation obligation will be reduced to keeping separate records of positions, types of assets and value related to collateral, the new UK rules should ensure the actual segregation of collateral. The aim is to achieve the protection of the assets of CMs, clients and the CCP itself, especially but not exclusively in the event of the insolvency of the CCP. Secondly, it would also be advisable that UK segregation rules impose the duty on CCPs to confirm the information that has been given by CMs concerning their clients’ positions, types of assets and value related to collateral. This is because the current regime puts the CCP in a purely administrative function to keep the register of positions, assets and value related to collateral. In carrying out this function, the CCP relies

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<sup>35</sup> Tariq Zafar Rasheed and Bas Zebregs, ‘Can a house divided between itself stand? Segregation in derivatives clearing’ (2012) 5 JIBFL 293.

<sup>36</sup> CME Clearing Europe Ltd. Accounts Disclosure Document <https://www.cmegroup.com/europe/clearing-europe/membership/files/CMECE-Account-Disclosure-Document.pdf> accessed 20<sup>th</sup> October 2015; LCH Clearnet Ltd. Disclosure for Purposes of Article 39(7) of EMIR (n 32).

completely on the information CMs give relating to their clients' types of assets and value related to collateral. As a result, if a dispute arises regarding those positions, assets and value, such a dispute will involve the CM and the client on one side and the CCP on the other. The latter will argue that it holds information considered complete and reliable. This foreseeable scenario leads this research to question whether it is useful that CCPs carry out segregated information. If the CCP will not be accountable, because any misleading information is not its responsibility but the CMs', there is not much sense on imposing the obligation to carry out segregated clients' information.

On the contrary, if the 'legal segregation' is complemented with a duty to verify the information given by CMs, CCPs will be compelled to be more vigilant regarding the information they receive. Moreover, the CCPs' commitment with the veracity of the recorded information would reinforce the achievement of the segregation objective concerned with protecting clients and CMs' assets. The CCP will benefit from a possibility to verify the information CMs deliver about their clients. For instance, in the Omnibus Client Account, CMs do not always provide information about the identity of their clients. As a result, any delay in receiving information or inaccuracy in such information could jeopardize CCP's ability to port positions and collateral<sup>37</sup>. If in that scenario the CCP were allowed to verify the accuracy of information, it would not face any issues to porting positions and collateral.

#### **4.2.1.2.2 CCPs' obligations related to CMs' positions**

The rules regarding the management of CM and clients' positions are almost exclusively left to the CCPs' rulebooks. The role of the CCP varies according to the type of account CMs hold. The role of the CCPs includes: recording of positions and margin, management of collateral including the excess of it, liquidation of collateral and portability, management of mutualisation risk and other shortfalls, and in some types of accounts the management of CM's clients' default.

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<sup>37</sup> *ibid* 5.

#### 4.2.1.2.2.1 Omnibus Client Account

The Omnibus Account will record positions entered into by a CM in respect of more than one client. The account records the types of assets and value of collateral. This type of account is also called an Omnibus Segregated Accounts<sup>38</sup>. The omnibus account can take several forms<sup>39</sup>. Net Omnibus Client Account: the CCP records all positions, types of assets and value of related collateral relating to the omnibus client as whole. Thus, the CCP cannot identify the records of positions and collateral by each client, nor net positions against each other, unless the CM authorises it to do so. The second is the Gross Omnibus Account, in which the CCP records positions by client according to the information provided by the CM. The types of assets and value-related collateral are recorded for the entire account, and not by the client. These two types of omnibus accounts comply with the minimal requirements of Article 39(2) EMIR.

The treatment of collateral follows some general rules. Each CM is required to deposit or deliver to the CCP with respect to each account it holds assets. The collateral is formed by initial and variation margins. Hence, the CCP determines the amount of margin for each account following the risk management procedure that the CCP has in place<sup>40</sup>. The sole discretion of the CCP is the parameter to modify or adjust initial and variation margins, as well as the reference prices it uses. Here the expectation is that the decision of the CCP is motivated by the best interest of the CMs and the CCP itself<sup>41</sup>.

When there is an excess of collateral<sup>42</sup> in the omnibus client accounts, there is no provision in EMIR on whether such excesses should be transferred to the CCP. Therefore, these assets will receive the same treatment as collateral; the

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<sup>38</sup> LCH.Clearnet Limited (the "Clearing House") Disclosure for Purposes of Article 39(7) of ("EMIR") ( n 32) 2.

<sup>39</sup> Each CCP adopts forms and names of Omnibus Accounts that, although similar in nature, receive different names. For instance, LCH Clearnet Lt. offers: the Non-Identified Client Omnibus Net Segregated Account (the "NOSA"), the Identified Client Omnibus Segregated Account (the "IOSA") , and the Affiliated Client Omnibus Segregated Account (the "AOSA"). LME Clear Lt. called them Omnibus Segregated Client Accounts.

<sup>40</sup> CME Clearing Europe Ltd. Rulebook Procedures, 93 ss.

<sup>41</sup> The CCP will notify any changes to the CMs. CME Clearing Europe Ltd. Rulebook pg. 92

<sup>42</sup> Excess Collateral in relation to and Omnibus Client Account is any Collateral that the CCP receives in respect of that Account which is greater than the collateral it has called from the CM.

CCP will record the type of assets and the value related to the excess collateral for the entire omnibus account. However, in the event of the CM's default the treatment of the excess collateral changes. In such an event, the CCP may take and liquidate all the collateral in the form of cash or securities in the omnibus client account for the purpose of offsetting any amounts owing by the defaulting CM.

The client's default in the omnibus client account, should not, in principle, have a direct effect on the clearing arrangements of other clients of the CMs, unless the default is significant and might cause the default of the CM<sup>43</sup>. In that case, the collateral of other clients in the same omnibus client account could be subject to mutualisation risk. According to the mutualisation risk, the client in the omnibus client account takes a degree of risk against other clients of the CM in the same omnibus account only upon the default of the clearing member<sup>44</sup>.

On the default of a client, the CMs may decide to transfer any positions relating to a defaulting client to the House Account so that they become house positions; alternatively, the CM may choose to close those positions out. Also, the collateral relating to the defaulting client, according to the identification made by the CM, could be transferred to the house account and become house collateral, if requested by the CM in accordance with the CCP rules. Until the defaulting client positions have expired, the CM is responsible for meeting the relevant margin requirements. Alternatively, the CM may close out those positions.

Regarding the portability obligation, CCPs are allowed to port positions and related collateral within a certain period of time in order to mitigate the risks that, upon the default of the CM. The value of both the positions and the collateral may fluctuate and the CCP will not be receiving a variation margin from the defaulting CM to reflect such fluctuations. Nonetheless, it is also

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<sup>43</sup> European Union Emissions Trading Scheme, 'Client Segregation and Portability under EMIR' <http://www.emissions-euets.com/collateral-segregation-and-portability> last consulted 29<sup>th</sup> February 2016.

<sup>44</sup> CME Clearing Europe Ltd. Accounts Disclosure Document ( n 36) 4.



possible that the CCP cannot port<sup>45</sup>. In such an event, CCPs will close out the positions in the relevant omnibus client account and calculate and return a sum. When the CCP is able to identify the client, the relevant sum will be returned to that client, otherwise the sum will be returned to the CM.

There are other risks that are shared under the structure of the Omnibus Client Account - the risks relating to fluctuation in the value of collateral. During business as usual, CCPs allocate collateral to each omnibus client account by value and types of assets, which are recorded by an issue identifier and nominal amount. Given that the collateral is not allocated by the client and is held in a pool for all clients within the same omnibus client account, clients share increases and decreases in the value of collateral. In the case of a CM default, CCPs are allowed to liquidate any non-cash collateral at such a time and at such a rate as it, in its reasonable discretion, determines. All the clients in the omnibus client account share the risk arising from the fluctuation of prices and rates, and the CCPs are not obliged to explain the reasons they had to act in a certain way.

The explanation of the Omnibus Client Accounts and the risk they pose to clients and CM shows the privileged position of CCPs. Although the proceedings are explained in CCPs' rulebooks and the Accounts Disclosure Documents, CCPs have a high level of discretion when deciding to opt for one option or another, and the exercise of that discretion might become a source of litigation. Thus, if the UK regulator issues additional guidance by means of principles or duties expected from CCPs, it would contribute to increase transparency and control over the CCPs decision-making process.

An additional source of litigation is concerning the event of insolvency of the custodians chosen by the CCP to hold the cash, securities or precious metals that make up the collateral. In the event of insolvency of the custodian or in case of a negligent, fraudulent or wilful default act that causes the loss of the money or assets, the liability of the CCP is limited. According to the CCP rulebooks, the

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<sup>45</sup> LCH Clearnet Ltd. calls this 'porting windows' to include all the portability proceedings. LCH.Clearnet Limited (the "Clearing House") Disclosure for Purposes of Article 39(7) of ("EMIR") 6

CM's claim against the CCP will be limited to the current value of the assets that the custodian makes available to the CCP, whilst all the clients of the Omnibus Account would share the losses. The responsibility of the CCP is restricted to having used appropriate skill, care and diligence when choosing the custodian. CCPs have no obligation to be vigilant of how custodians perform their obligations.

#### **4.2.1.2.2.2 Individual Client Account**

Individual Client Accounts record positions entered into by a CM in respect of a single client of the CM and the collateral relating to such positions separately from those of both the CM and any other client of the CM. This type of account is also called an Individual Segregated Account<sup>46</sup>. The benefits EMIR expects from this form of segregation are the complete separation of one client's positions and collateral from the CM and its other clients. Upon a default of a CM, CCPs will liquidate the collateral of the defaulting CM and facilitate the porting in the individual client account with the value of the related collateral to an adopting CM in accordance with the CCP rulebook. The positions and collateral associated with each individual client account can be ported to a different adopting CM, but if porting is not possible, the CCP might decide to close out the clients' positions. Therefore, the CCP will exercise its discretion in deciding the procedure to follow in each case.

The principal advantage of using an individual client account is that the client's collateral, including the excess collateral, is legally segregated and cannot be used to cover any losses relating to the positions of other clients or other accounts.

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<sup>46</sup> LCH.Clearnet Limited (the "Clearing House") Disclosure for Purposes of Article 39 (7) of ("EMIR") pg.2. LME Clear Ltd. call them Individual Segregated Client Accounts, and offers three types of Direct Individual Segregated Accounts, Indirect Individual Segregated Client Accounts and Indirect Omnibus Segregated Client Accounts. LME Clear Disclosure. Disclosure under EMIR Art. 39 (7) pg 3.

#### **4.2.1.2.2.3 Fully Segregated (FS) Account**

In contrast to the accounts created by CCPs and CMs is the Fully Segregated (FS) Account. FS Accounts are the only ones that protect CMs and their clients from the insolvency of the CCP. The FS Individual Client Account is an account created in the CCP and the FS Account is an account with the FS custodian. The CCP, the CM and the client will enter into an FS Settlement Deed in relation to each FS individual client account. Accordingly, the collateral related to an FS individual client account is delivered directly to the FS Account and vice versa. Such collateral satisfies the client's margin obligations to the CM and the CM's margin requirement in relation to the FS individual client account. Thus, the CCP creates a security interest over each FS Account in favour of an FS Security Trustee. The FS Security Trustee will hold the security on trust for the benefit of the CM and the relevant client in the terms of the Security Interest Document, which will be enforceable when the CCP enters into an insolvency proceeding.

The procedure upon the default of the CCP shows the unprotected position of the clearing members and clients. In the FS Account, the default of the CCP triggers the right of each CM to calculate a CCP Default Sum for each of its FS individual client accounts by netting positions and the value of the collateral recorded; the CCP shall verify every calculation, but if there is dispute, the final decision is the CCP's calculation. Similarly, the collateral related to the FS Account and the FS Individual Client Account is available to meet the losses incurred by the CCP, and the only remaining collateral - if any - is the one secured by the relevant FS Security Interest Document in favour of the FS Security Trustee. The Trustee will enforce the security interest document against the collateral and can instruct the FS custodian to liquidate or transfer the securities or cash. The powers that the trustee can exercise depend upon the contractual terms that CMs and clients should know.

In the current status of the clearing regime, it is possible for CCPs to diversify the services they provide. For instance, LME Clear Ltd. offers the

possibility to clear indirect clients<sup>47</sup> contracts; they are the clients of the CM's own clients. CMs are then allowed to open client accounts for them and those accounts can be omnibus, when multiple indirect clients are allocated to the same account, or individual accounts. In both types of accounts, specific porting procedures would be in place, and as with the other forms of segregation, the rules governing these obligations are contained in the CCP rulebook and its account disclosure document.

The foregoing explanation of the different types of accounts CMs hold in CCPs is brought here to illustrate the dynamics of the relationship between CCPs and CMs. The content of the contractual agreements as well as the exercise of discretion of CCPs might be source of litigation. The next part questions whether the recognition of the existence of a duty of care of CCPs could help to solve some of these issues.

#### **4.2.2 Should UK regulators care about CCPs' Duty of Care?**

Section 291 of the FSMA 2000 clearly states the liability in relation to a recognised body's regulatory functions. The statutory provision limits the liability for recognised bodies, among them CCPs. Hence, CCPs 'are not to be liable in damages for anything done or omitted in the discharge of the recognised body's regulatory functions unless it is shown that the act or omission was in bad faith'. In turn, regulatory function refers to 'functions of the recognised body so far as relating to, or to matters arising out of, the obligations to which the body is subject under or by virtue of this Act'. It follows that CCPs are allowed to act on their own discretion regardless of the effects this might have for others' rights, and the only limit is to act in bath faith. Accordingly, CCPs' rulebooks include several clauses delimiting the scope of the CCPs' liability.

As might be anticipated from the previous section, the dynamics of the contractual relationship between CCPs and CMs prompt several potential sources of litigation. In particular, when some of the rules are not observed, or when, in

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<sup>47</sup> LME Clear Disclosure. Disclosure under EMIR Art.39(7),17.

exercising their discretion, CCPs adversely affect the rights of CMs and their clients. Thus, this research argues the importance of recognising a duty of care<sup>48</sup> in the contractual relationship between CCPs and CMs. The recognition of such a duty would imply a regulatory reform and could be subsequently constructed under the parameters of the common law negligence.

The seminal case regarding the establishment of a duty of care is *Hedley Byrne v Heller & Partners*,<sup>49</sup> where the duty of care was recognised in the provision of information and advice. The two most significant developments of *Hedley Byrne* were the recognition of liability for negligent misstatements and where the injury suffered was pure economic loss<sup>50</sup>. However, the concern in the relationship between CCPs and CMs is not in the area of advice given<sup>51</sup>; rather, it refers to financial service providers or intermediaries, in this case CCPs, acting as providers of clearing services.

In order to argue the existence of a duty of care in the CCP-CM relationship, it is adequate to review the imposition of duties of care in novel situations, as presented in *Bank of Credit & Commerce International (Overseas) Ltd (in Liquidation) v Price Waterhouse (N.2)*<sup>52</sup>. Sir Brian Neill identified three tests applied in early authorities<sup>53</sup> - they are: 'the three-stage test of foreseeability, proximity, and justice and reasonableness'<sup>54</sup>, assumption of responsibility<sup>55</sup>, and the incremental approach<sup>56</sup>. The development of the

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<sup>48</sup> 'Amongst the key factors affecting **whether a duty of care** existed are the extent to which the client did, in fact, rely on the investment bank and whether the bank could reasonably have been expected to know that the client was relying on it (See *Caparo Industries plc v Dickman* [1990] 2 AC 605 and *So v HSBC Bank plc* [2009] 1 CLC 503). It is in relation to these factors that the client's 'sophistication' is likely to be relevant, although it should be stressed that the expression 'sophisticated investor' is not a term with a defined legal meaning.' Andrew Twigger, 'Sophisticated investors: do they have any rights?' (2010) 9 JIBFL 515.

<sup>49</sup> [1964] AC 465

<sup>50</sup> Gerard McMeel and John Virgo, *McMeel and Virgo on Financial Advice and Financial Products* (3<sup>rd</sup> edn, OUP, 2014) 171.

<sup>51</sup> 'Numerous decisions dealing with complex financial transactions recognise the parties' freedom to contract on a basis which precludes any duty of care arising'. Twigger, 'Sophisticated investors: do they have any rights?' (n 48) 515.

<sup>52</sup> [1998] EWCA Civ 236, (1998) PNLR 564, [1998] Lloyd's Rep Bank 85).

<sup>53</sup> BCCI [1998] PNLR 583.

<sup>54</sup> *Caparo Industries plc. v Dickman* [1990] 2AC 605.

<sup>55</sup> It was firstly recognised in *Hedley Byrne* and reinterpreted in *Junior Books Ltd v Veitchi Co Ltd*. [1983] 1 AC 520.

incremental approach in the twentieth century<sup>57</sup> allowed the recognition of liability in tort for negligent acts<sup>58</sup> and negligent omissions<sup>59</sup>. The argument of this research seeks to open the discussion on the content of the duty of care of CCPs in front of their CMs and CMs clients as a form of expansion of liability in the tort of negligence.

Although the existence of a duty of care of CCPs has not been recognised in Courts, some recent cases elucidate the importance of reviewing its potential content. The first is *MF Global UK Ltd (In Special Administration) v LCH. Clearnet Ltd*<sup>60</sup>. In this case, the Joint Special Administrators of MF Global applied for an order under the Insolvency Act 1986 s. 236 or s. 237 (3) against the respondent French and UK companies, seeking the production of documents and a full description of the sales or auction process by which the respondents' close-out of MF Global open positions with the respondents. LCH Clearnet (respondents) operated the clearinghouses in different jurisdictions, including the UK and France. When MF Global went into administration in 2011, it had a number of open positions with LCH Clearnet, including European Sovereign Debt. Since the appointment of MF Global administrators constituted a default event, LCH Clearnet exercised the right to close out MF Global's open positions. The MF Global administrators allege that the value of the losses suffered was significantly larger than it should have been. In particular, the administrators calculated that "if all the open positions had been closed at or around the prices quoted by Bloomberg, on the relevant termination dates, the discount suffered would have been €241 million, as opposed to €422 million"<sup>61</sup>. According to the MF Global administrators, it is not clear why there were such significant differences between the Bloomberg prices and the close out prices. The discussion was, therefore, whether the LCH Clearnet exercised its right to close out the positions of its client in accordance with the duty of care. In this case, it

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<sup>56</sup> High Court of Australia *Sutherland Shire Council v Heyman* [1985] 157 CLR 424, 481. Approved by the House of Lords in *Murphy v Brentwood District Council* [1991] 1 AC 398, 461.

<sup>57</sup> *McMeel and Virgo, McMeel and Virgo on Financial Advice and Financial Products* (n 50).

<sup>58</sup> *Donoghue v Stevenson* [1932] AC 562.

<sup>59</sup> *Home Office v Dorset Yacht Co Ltd* [1970] AC 1004.

<sup>60</sup> *MF Global UK Ltd (In Special Administration), Re* Also known as *Fleming v LCH.Clearnet Ltd*. [2015] EWHC 2319 (Ch).

<sup>61</sup> *MF Global UK Ltd (In Special Administration)*.

was sought to understand the process that LCH Clearnet would close out the open positions, including the selection of the participants in the sale process, as well as the explanation of how bids were obtained and reviewed. LCH Clearnet made all the relevant information available. Although the application was dismissed, there is an important consideration to highlight from this case: the limited liability of LCH Clearnet to bad faith acts that clearly diminish their counterparties' rights. Under the current regime, clearing houses - more specifically CCPs - are allowed by statute to limit their responsibility. Their counterparts can seek to have access to the information about how diligent CCPs have been in performing their obligations or exercising their contractual rights. However, once the information is received, the only cause of action would be acts of bad faith, fraud, gross negligence. In other words, CCPs can act as negligently as possible and the only limit is the utmost negligence or wilful default.

The second case that offers an interesting perspective regarding the management and value of clients' assets is *MF Global UK Ltd (In Administration), Re*<sup>62</sup>. In this case, the joint administrators of MF Global UK sought a direction from the court relating to the distributions to be made to clients of an insolvent investment bank. Similar to the obligation of CCPs, investment firms were required to segregate money received from or held for their clients and hold it in a trust for them; that money is called 'client money'. According to the Client Assets Sourcebook (CASS) chapters 7 and 7A, in the event of administration or liquidation of the firm amongst other circumstances, client money had to be distributed among the clients pro rata according to their entitlements. The value of the client's entitlement was to be established as at the date when the obligation arose - the primary pooling event (PPE).

The dispute in the case was whether that calculation in the event of administration or liquidation was to be done with the market value, as at the PPE, or with the prices at which the trades were subsequently closed out<sup>63</sup>, whether at

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<sup>62</sup> [2013] EWHC 92 (Ch)

<sup>63</sup> The court explained the **hindsight principle**. It is a principle of general application that, where the amount of a contingent or an unascertained claim must be estimated for the purposes of a

the contractual settlement date, or at an earlier date in accordance with applicable default provisions<sup>64</sup>. The Court held that the client's money entitlement had to be valued by reference to market value as at the PPE, rather than by reference to the subsequent closed out prices. Moreover, it clarified that the hindsight principle only operates as a default mechanism to fill gaps in relevant regulation, and that it was not applicable to the determination of claims to client money for the purposes of a distribution under CASS 7A.

This case is illustrative because it explains how the client assets regime contributes to determine the valuation methodology during the normal course of business, as well as in the event of insolvency. Although the CASS regime is not applicable to CCPs operating in the OTCDM, the discussions in the case show the importance of having such a regime in place. The existence of a client assets regime does not prevent litigation, but seeks to enhance the certainty regarding the process of valuation of assets, and provides an additional layer of protection of clients and CMs rights. The absence of regulatory guidance related to the management and valuation of assets leave these issues, as is the case with CCPs, to the discretion of the dominant counterparty.

Against this background this research emphasises the need to review the statutory and contractual limits to the liability of CCPs. The restriction to CCPs' liability to acts in bad faith, gross negligence and wilful default have a substantial impact on the ability of CMs and clients to enforce their rights. One way to assist the review of the regime is to construct a 'Duty of Care' applicable to CCPs when performing their obligations. The standards of conduct contained in MiFID I, MiFID II and EMIR are a useful framework to build up the scope of the duty and would complete the UK regime<sup>65</sup>. In particular, the duty of CCP to

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distribution or payment, and the amount of the claim becomes certain before the distribution or payment, the latter amount will be taken as the claim's value. (...) The most common circumstances for the application of the hindsight principle are the distribution of the assets of insolvent companies or individuals'. [2013] EWHC 92 (Ch)

<sup>64</sup> [2013] EWHC 92 (Ch)

<sup>65</sup> 'Sue Lewis highlighted that key principles, however, were largely consistent except for the 'duty of care' principle. While there was a duty of care principle in MiFID I/II'. House of Lords European Union Committee 5th Report of Session 2014– The post-crisis EU Financial Regulatory Framework: Do the pieces fit?15; See *The Select Committee on the European Union Sub-Committee A (Economic and Financial Affairs) Inquiry on REVIEW OF THE EU*



act fairly and professionally in accordance with the best interests of clearing members and clients.

This research anticipates some shortcomings of the proposal to review the limited liability regime. Even if UK regulators consider the reform of the statutory provision that allows recognised bodies to restrict its liability in the terms of Section 291 of FSMA 2000, the recognition of CCPs' liability beyond bad faith would possibly have to deal with reluctant Courts. The concern is triggered by the approach English Courts tend to have in cases concerning the interpretation of contractual clauses. Here, this research borrows some of the arguments of McMeel in the 'Myth of Contractual Estoppel'. According to McMeel,<sup>66</sup> until 2006, English judges would always consider the written contract, but they were generally prepared to recognise that what was set down in writing did not always reflect the realities of the relevant transaction'. However, in 2006 the *Peekey*<sup>67</sup> case and in 2010 *Springwell*<sup>68</sup> Courts turned to interpret that, where parties had agreed to enter into a contract on a certain basis, they could not then claim at a later stage that the reality of the situation was something different. This brought to the context of the clauses limiting the liability of CCPs, means that, whatever the reality of the situation, the strict wording of the original contract is upheld<sup>69</sup>. Thus, along with the reform of the statutory limitation of liability, regulators should develop the scope and content of CCPs' liability. Otherwise, CCPs would continue to include clauses with a similar content that are likely to be upheld in English Courts.

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*FINANCIAL REGULATORY FRAMEWORK Evidence Session No. 13 TUESDAY 21 OCTOBER 2014 Witnesses: Sue Lewis and Colin Tyler transcript available <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/eu-sub-a-economic-and-financial-affairs-committee/review-of-the-eu-financial-regulatory-framework/oral/14797.html> accessed 15<sup>th</sup> October 2015.*

For all retail clients and all clients engaged in MiFID. In the COBS 2, there is a new MiFID-inspired rule that reacts a firm must act 'honestly, fairly and professionally in accordance with the best interests of its client'. This rule will be actionable by private persons in accordance with Section 138D of FSMA 2000 (As substituted by section 24 of FSA 2012).

<sup>66</sup> Gerard McMeel, 'Documentary fundamentalism in the Senior Courts: the myth of contractual estoppel' (2011) L.M.C.L.Q. 185.

<sup>67</sup> *Peekay Intermark Ltd v Australia and New Zealand Banking Group Ltd* [2006] 2 Lloyd's Rep 511.

<sup>68</sup> *Springwell Navigation Corporation v JP Morgan Chase Bank & Ors* [2010] EWCA Civ 1221.

<sup>69</sup> A practitioner's opinion on Contractual Estoppel. 'Contractual Estoppel – Testing the Banks' Position (Nov 2011) <http://www.enyolaw.com/news/contractual-estoppel-testing-the-banks-position-november-2011> accessed 23<sup>rd</sup> October 2015.

Similarly, English Courts have been reluctant to recognise the existence of a duty of care when the counterparties are ‘sophisticated investors’<sup>70</sup>. The interpretation however, in those cases has been focused on the extent sophisticated counterparties understand the content of contracts<sup>71</sup> and the riskiness of the investments<sup>72</sup>. The approach of this research is different. The scope of the duty of care of CCPs is not restricted to giving advice to their counterparties - it is centered on the standard of diligence in the holding and management of assets and positions of CMs. It is a duty applicable to the normal course of business of CCPs, as well as the insolvency of a CCP.

In the area of acting fairly and professionally in the best interests of CMs and clients, the regulators would have the opportunity to dictate solutions to the conflicting interests. This is to design a system of rules and guidance that articulates the interests of CCPs, CMs and clients along with public policy objectives. This would present a formidable challenge to any regulator. However, this research argues that the recognition of the duty of care would re-balance the relationship between CCPs and CMs, and could potentially benefit more complex or indirect relationships (CMs’ clients).

In developing the content of duty of care, regulators might be assisted by CCPs. The introduction of the duty of care does not intend to attack CCPs, but to facilitate the normal course of business and execution of contractual obligations. The enhancement of a culture of cooperation between the contractual parties reduces the causes of future litigation and increases the certainty and reliability of contractual terms.

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<sup>70</sup> In the *Springwell* case: Gloster J held that ‘Springwell was a ‘highly sophisticated investor’ and that this was a ‘pointer against’ any duty of care arising; furthermore, the documentation governing the relationship between the parties acknowledged that Springwell was a sophisticated investor and this was decisive’.

<sup>71</sup> See *Mance J said in Bankers Trust International Plc v Dharmala Sakti Sejahtera* [1996] CLC 518; Lord Hoffmann said in *Commissioners of Customs and Excise v Barclays Bank plc* [2007] 1 AC 181, ‘the law of negligence does not impose liability for mere omissions.’.

<sup>72</sup> See for example, *IFE Fund v Goldman Sachs International* [2007] Lloyds Rep. 449 (CA) and *Titan Steel Wheels Ltd v Royal Bank of Scotland plc* [2010] EWHC 211 (Comm). In *Peekay Intermark Ltd v ANZ Banking Group Ltd* [2006] CLC 582.

### 4.3 Inexistence of a Special Resolution Regime for CCPs

The third fracture of the UK regime of CCPs in the OTCDM is the inexistence of a special resolution regime. The BoE has focused its prudential regulation on the development of loss allocation and recovery rules. The aim of the Bank is to ensure that CCPs have in place efficient rules to allocate the losses arising from clearing members' (CMs) default and losses originated in a different cause. The strengthening of recovery rules has occupied the supervision in the first years of the regime. Although the expectation is that CCPs will be robust enough not to enter into any type of insolvency, failure is still a possibility. Therefore, supervisors should have a complete regulatory framework to conduct CCPs' insolvency proceedings in an orderly manner, seeking to ameliorate the consequences of the CCPs default and to ensure the continuity of services.

The insolvency of CCP occurs when the default and recovery rules have not been sufficient to manage the financial distress. The recovery of a CCP comprises a wide range of measures, including the allocation of the uncovered losses caused by participant default<sup>73</sup>, liquidity shortfalls<sup>74</sup>, tools to replenish financial resources<sup>75</sup>, tools for a CCP to re-establish a matched book, and mechanisms to allocate losses not related to participants default<sup>76</sup>. In the UK the BoE has devoted the regulatory efforts towards the design of strong recovery rules<sup>77</sup>. As noted before, the UK recovery regime goes beyond the EMIR requirements and imposes an additional obligation to CCPs. This is the requirement to have in place rules to allocate losses arising from different reasons than CMs' default.

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<sup>73</sup> Key Consideration 7 of Principle 4 of the PFMI. 'Tools to allocate uncovered losses caused by participants' default: cash calls, variation margin haircutting by CCPs, use of initial margin, other tools involving collateral and capital to address liquidity shortfalls, obtain liquidity of third party institutions, forced allocation of contracts, contract termination: tear-up, capital and recapitalisation'. CPMI-IOSCO, 'Recovery of Financial Market Infrastructures' (October 2014) <http://www.bis.org/cpmi/publ/d121.pdf> accessed 5<sup>th</sup> November 2015 (Hereinafter CPMI-IOSCO Recovery of FMIs 2014).

<sup>74</sup> Liquidity risk is the risk that a counterparty, whether a participant or other entity, will have insufficient funds to meet its financial obligations when due, even though it may be able to do so in the future'. Key Consideration 10 of Principle 7 of the PFMI *ibid*.

<sup>75</sup> For instance, obtain liquidity from participants to replenish financial resources by means of cash calls and or raise additional equity capital. CPMI-IOSCO Recovery of FMIs 2014.

<sup>76</sup> These are extraordinary one-off loss or recurring losses from general business, custody and investment risks. *ibid*.

<sup>77</sup> *ibid*.

According to the structure of the key elements on which the BoE focuses its assessment of CCPs, the recovery and resolvability rules are allocated as structural mitigation of risk. The Bank announced in 2013<sup>78</sup> that the areas of risk identification and mitigation represent the most important and fundamental requirements for CCPs. Hence, the supervision would cover both the design of CCPs' rules and the use of management discretion in the application of those rules. The Bank classifies the mitigating factors into three categories: operational mitigants, financial mitigants and structural mitigation<sup>79</sup>. The operational mitigants include the promotion and maintenance of standards, management and governance, risk management and controls, and disaster recovery plans. The financial mitigants involve the rules concerning collateral, margins and default funds, liquid resources and capital requirements. The structural mitigation comprises recovery and resolvability regimes. This description is brought to this section to illustrate the different tools and mechanisms that CCPs have to protect themselves against counterparty credit risk and other potential sources of losses. Therefore, the resolution regime only applies when all the fences of the CCP have not been sufficient to allocate and absorb losses.

Recovery and resolvability regimes are a tool for the effective management of participants' default, and the provision to ensure that CCPs have adequate financial resources to contain losses or liquidity shortfalls, whilst minimizing the disruption to the system and the products they clear. These regimes are closely linked to risk management practices that CCPs should have in order to observe the PFMI<sup>80</sup>. Under this rationale, the BoE follows the guidance of the PMFIs<sup>81</sup> to structure its approach. In particular, CCPs are required to have clear rules on how any losses in excess of loss-absorbing resources would be allocated, as well as the use of contractual procedures of tear-up contracts as a last resort mechanism, the design of loss-allocation rules should be sensitive to the incentives given to participants and intend to maintain the

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<sup>78</sup> Bank of England, 'The Bank of England's approach to the supervision of financial market infrastructures (April 2013) 5 (Hereinafter BoE's approach to FMIs' Supervision, 2013).

<sup>79</sup> *ibid* 7.

<sup>80</sup> CPMI-IOSCO Recovery of FMIs 2014.

<sup>81</sup> Principle 4, Key Consideration 7: 'An FMI should establish explicit rules and procedures that address fully any credit losses it might face as a result of any individual or combined default among its participants with respect to any obligations to the FMI' *ibid*.

continuity of services. Also, the loss-allocation rules should ensure that losses fall on participants and shareholders. Beyond the hypothesis of participants' default, the BoE requires CCPs to have in place rules to allocate the losses that directly reduce its capital resources<sup>82</sup>. For instance, when the CCP invests the margin or part of the default fund it received from participants, and suffers investment losses.

Regarding the resolution regime of CCPs, the BoE announced that certain rules and proceedings of CCPs would have implications for the resolution options the Bank has<sup>83</sup>. For instance, the segregation requirement is a mechanism that, as explained earlier, contributes to isolate the impact of a participant's default, and may facilitate the resolution of both CCPs and CMs. Also, the transfer of full-ownership of the assets that constitute the collateral provide the CCP with a high level of flexibility in liquidity management<sup>84</sup>. Moreover, if the margin received by the CCP is not bankruptcy remote, it could be subject to a reduction in its value (write down) in line with the no-creditor worse off safeguard<sup>85</sup>, which in the Banks's opinion would broaden the set of potential resolution strategies.

The design of a UK special resolution regime for CCPs would be in line with the international OTCDM reform. One of the safeguards to support a resilient and efficient framework for central clearing is to have in place 'resolution and recovery regimes that aim to ensure the core functions of CCPs

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<sup>82</sup> Adding to the recognition requirements, the July 2013 amendments also required CCPs, by February 2014, to put in place rules to allocate losses arising from CMs' default that exceed the pre-funded resources. And by May 2014, arrangements to allocate insolvency-threatening losses arising other than as a result of a clearing member's default (non-default losses). The Bank of England's supervision of Financial Market Infrastructures. Annual Report. March 2015 (Hereinafter BoE's supervision of FMIs 2<sup>nd</sup> Annual Report 2015) 13-14. See David Elliott, 'Central Counterparty loss-allocation rules' (Bank of England, Stability Paper N 20, 2013) [http://www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs\\_paper20.pdf](http://www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs_paper20.pdf) accessed 5<sup>th</sup> November 2015.

<sup>83</sup> BoE's approach to FMIs' Supervision, 2013) 9.

<sup>84</sup> *ibid* 10.

<sup>85</sup> This is a principle according to which 'no shareholder or creditor will be left worse off after the use of stabilisation tools than they would have been if the firm had been placed into an insolvency proceeding.' Katy Stone, 'Three-step strategy for resolution of failed institutions'. Opinions of Andrew Wilkinson and Alexander Wood, and Kate Stephenson Weil, Gotshal & Manges LLP. LexisNexis Blog. (November 6<sup>th</sup> 2014) <http://blogs.lexisnexis.co.uk/randi/three-step-strategy-for-resolution-of-failed-institutions/> accessed 5<sup>th</sup> 2015.

are maintained during times of crisis<sup>86</sup>. Following this objective the FSB, in consultation with CPMI-IOSCO, issued guidance on FMI Resolution and the Key Attributes of Effective Resolution Regimes<sup>87</sup>. The objective is that Special Resolution Regimes (SRR) attend to the particularities of each type of FMI, among them CCPs. The design of the SRR will help to overcome the shortcomings rising from applying general laws or, in the case of the UK, banking insolvency laws to the defaulted clearinghouse<sup>88</sup>.

The first step towards ruling CCPs' insolvency in the UK was to extend the insolvency regime of the Banking Act 2009 to CCPs. On February 24<sup>th</sup> 2015, secondary legislation<sup>89</sup> was enacted which amends the FSMA Regulations 2013<sup>90</sup>. The amendment<sup>91</sup> sought to ensure that the Special Resolution Regime (SRR) under the Banking Act 2009 was applicable to CCPs based in the UK, it came into force on March 18<sup>th</sup> 2015.

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<sup>86</sup> FSB, 'OTC Derivatives Market Reforms- Eight Progress Report on Implementation (7<sup>th</sup> November 2014).

<sup>87</sup> FSB, 'Key Attributes of Effective Resolution Regimes for Financial Institutions' (October 15<sup>th</sup> 2014)  
[http://www.financialstabilityboard.org/wp-content/uploads/r\\_141015.pdf](http://www.financialstabilityboard.org/wp-content/uploads/r_141015.pdf) accessed 2<sup>nd</sup> November 2015.

<sup>88</sup> 'Systemically important FMIs play an essential role in the global financial system and the disorderly failure of such FMIs could lead to severe systemic disruptions if it caused markets to cease to operate effectively'. Committee on Payment and Settlement Systems and the Board of the International Organization of Securities Commissions (CPSS (now CPMI)-IOSCO), 'Consultative Report: Recovery of financial market infrastructures' (August 2013)  
<http://www.bis.org/cpmi/publ/d109.pdf> accessed 4<sup>th</sup> November 2015.

<sup>89</sup> Regulations 2015 make an amendment to the transitional provision included in the Financial Services and Markets Act 2000 (Over the Counter Derivatives, Central Counterparties and Trade Repositories) Regulation 2013 (S.I. 2013/504) ("the Principal Regulations"). Regulation 25 of the Principal Regulations made amendments to Part 1 of the Banking Act 2009 (hereinafter BA 2009) to the effect that the special resolution regime provided for in Part 1 of the 2009 Act will apply to "recognised central counterparties" i.e. those central counterparties which are subject to, and recognised pursuant to, the requirements of Regulation (EU) 648/2012 of the European Parliament and of the Council of 4<sup>th</sup> July 2012 on OTC derivatives, central counterparties and trade repositories (OJ No L 201, 27.7.2012, 1).

<sup>90</sup> FSMA 2000, Regulations 2013 govern Over the Counter Derivatives, Central Counterparties and Trade Repositories.

<sup>91</sup> The FSMA 2000 (Over the Counter Derivatives, Central Counterparties and Trade Repositories) (Amendment) Regulations 2015  
[http://www.legislation.gov.uk/ukxi/2015/348/pdfs/ukxi\\_20150348\\_en.pdf](http://www.legislation.gov.uk/ukxi/2015/348/pdfs/ukxi_20150348_en.pdf) accessed 2<sup>nd</sup> November 2015.

Furthermore, the Code of Practice<sup>92</sup> explains how the Banking Act 2009 applies to CCPs<sup>93</sup>. In particular, it delimits the circumstances in which the Bank of England, acting as the Resolution Authority, will use the stabilisation powers. The Code provides guidance as to how the SRR applicable to CCPs achieves the objectives<sup>94</sup> to protect and enhance financial stability and public confidence, protect public funds and avoid interfering with property rights. The BoE will have regarded those objectives in using the stabilisation powers with respect to CCPs<sup>95</sup>. Such stabilisation powers include the power to transfer some or all the business of a CCP or its group undertaking to a commercial purchaser, the power to transfer some or all the business of a CCP or its group undertaking to a bridge CCP (a company wholly owned and controlled by the BoE), and the power to transfer the ownership of the CCP to any person. According to the FSA 2012, in the first two events the Bank is allowed to transfer membership agreements, which preserve the position of each member together with the rules of operation of the failed CCP.

As might be anticipated, the first aim of the BoE is to exercise the stabilisation powers to maintain the continuity of central counterparty clearing services<sup>96</sup> - an objective that is also relevant for the protection of financial stability and public confidence. The special attention given to the continuity of CCPs' services is in line with the recognition of the systemic importance of CCPs in the OTCDM and in the financial system. This is to understand that there are wider systemic risks posed by a failure of a CCP and that any action or omission of regulators in such an event will also have systemic impact<sup>97</sup>. Moreover, the prominent position of CCPs as systemic risk managers highlights the role of CCPs as '*de facto*' regulators and supervisors for the markets they

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<sup>92</sup> HM Treasury, Banking Act 2009: special resolution regime code of practice (March, 2015) Chapter 13: SRR for Central Counterparties, (Hereinafter BA CoP 2015) [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/411563/banking\\_act\\_2009\\_code\\_of\\_practice\\_web.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/411563/banking_act_2009_code_of_practice_web.pdf) accessed 2<sup>nd</sup> November 2015.

<sup>93</sup> The authorities are legally obliged to have regard to the Code under section 5(4) of the Act.

<sup>94</sup> Special Resolution Objectives are set out in s 4 of the BA 2009.

<sup>95</sup> s 4 (2) BA 2009.

<sup>96</sup> s 4(6) BA 2009.

<sup>97</sup> BA CoP 2015, 81.

clear<sup>98</sup>. By protecting themselves, CCPs impose market discipline on their CMs and clients. Thus, default management, recovery and resolution rules for CCPs are part of the armour they need to have in place to contribute to systemic stability.

Although the UK is one of the jurisdictions leading the regulatory advances on CCPs resolution,<sup>99</sup> by anticipating how the BoE would exercise the stabilisation powers, it is equally important that the Bank goes beyond and designs a special resolution regime for CCPs. This research acknowledges that the main focus of the BoE as prudential regulator is to ensure the safety and soundness of CCPs, making them robust institutions. A core feature of a stable financial system requires recognising that financial institutions are resolvable<sup>100</sup>. Indeed, this is the fracture of the current UK regime for CCPs in the OTCDM. It seems that the BoE is reluctant to recognise that CCPs might fail<sup>101</sup>, and in consequence it has been strictly focused on developing recoverability rules, leaving the resolution regime aside. Recovery and loss allocation rules are certainly an important part of the prudential regulation of CCPs, but the regime needs to be completed with efficient resolution rules<sup>102</sup>. The delay in developing

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<sup>98</sup> Paul Tucker, 'Clearing houses as system risk managers' (Bank of England, Speech At the DTCC-CSFI Post Trade Fellowship Launch, London 1 June 2011) <http://www.bankofengland.co.uk/archive/Documents/historicpubs/speeches/2011/speech501.pdf> accessed 4<sup>th</sup> November 2015.

<sup>99</sup> As it was reported in FSB, 'Progress and Next Steps Towards Ending 'Too-Big-To-Fail' ('TBTF'): Report of the Financial Stability Board to the G-20' (September 2, 2013) [http://www.financialstabilityboard.org/wp-content/uploads/r\\_130902.pdf?page\\_moved=1](http://www.financialstabilityboard.org/wp-content/uploads/r_130902.pdf?page_moved=1) accessed 4<sup>th</sup> November 2015.

<sup>100</sup> Regarding the role of the BoE as Banking Resolution Authority. Bank of England, 'Consultation Paper: The Bank of England's powers to direct institutions to address impediments to resolvability' (May, 2015).

<sup>101</sup> 'It is important that authorities also consider what action may be necessary in the event recovery measures prove to be insufficient. In such a scenario, however unlikely it is to arise, resolution might be necessary'. Arshadur Rahman, 'Over-The-Counter (OTC) derivatives, central clearing and financial stability' (Bank of England, Bank's Financial Market Infrastructure Directorate, Quarterly Bulletin 2015 Q3) 291 <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2015/q306.pdf> accessed 9<sup>th</sup> November 2015.

<sup>102</sup> 'Where the use of CCP is mandatory, rather than a private choice, the official sector has a responsibility to clarify how it would deal with a situation of financial distress. Although robust risk management standards significantly reduce the likelihood of a CCP failure, the possibility of such a failure cannot be eliminated entirely'. Matt Gibson, 'Recovery and Resolution of Central Counterparties' (Reserve Bank of Australia Bulletin, December Quarter 2013) 39 <http://www.rba.gov.au/publications/bulletin/2013/dec/pdf/bu-1213-5.pdf> accessed 4<sup>th</sup> November 2015; See Financial Services and the Treasury Bureau, the Hong Kong Monetary Authority, the



a special resolution regime for CCPs is in principle attributable to the European Union that has not issued the relevant regulation or guidance, but also to the international perception<sup>103</sup> that CCPs' default must be maintained at essentially zero<sup>104</sup>. Therefore, the considerations presented in this section aim to discuss some of the aspects to be considered in the resolution of CCPs and to justify a different regime to the one of the Banking Act 2009, which was designed for banks.

#### 4.3.1 CCPs' failure is a possibility

The first discussion this section presents is how UK regulators seem to perceive that the failure of a CCP is not going to happen. As a result, the regulatory action does not include the design of a resolution regime that attends to the particularities of CCPs. Some scholars argue that regulating CCPs is less complicated than regulating banks and that the regime can be designed so that CCPs are almost 'default-free'<sup>105</sup>. Indeed, Hull proposes that the key element to achieve a CCP free from default is a regime that ensures CCPs have in place good practices regarding the choosing of members, the valuation of transactions and determination of initial and variation margins and default fund contributions. Moreover, he explains that the content of the contract between CCPs and clearing members can contribute to achieve the objective<sup>106</sup>. However, this research argues that this is a simplistic approach to seeing CCPs' regulation. It is restricted to transactional issues, it ignores the complexities of the CCPs' functioning and it fails to understand the systemic importance of these institutions. In the words of Duffie, 'the bulk of the financial risk of a CCP is not

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Securities and Futures Commission and the Insurance Authority, 'An Effective Resolution Regime for Financial Institutions in Hong Kong: Consultation Paper' (January, 2014) [http://www.fstb.gov.hk/fsb/ppr/consult/resolution\\_e.pdf](http://www.fstb.gov.hk/fsb/ppr/consult/resolution_e.pdf) accessed 4th November 2015.

<sup>103</sup> 'Federal Reserve Bank of New York president says post-crisis derivatives clearinghouses must be bulletproof' Michael Mackenzie, 'Call for 'Bulletproof' Clearing Houses' (FT March 22, 2012) <http://www.ft.com/cms/s/0/eacb29cc-7451-11e1-9e4d-00144feab49a.html#axzz3r5s4KjUu> accessed 10<sup>th</sup> November 2015.

<sup>104</sup> BIS, 'Macroeconomic impact assessment of OTC derivatives regulatory reforms' (BIS, Macroeconomic Assessment Group on Derivatives, August, 2013) 15 <http://www.bis.org/publ/othp20.pdf> accessed 4<sup>th</sup> November 2015.

<sup>105</sup> John C. Hull, 'The Changing Landscape for Derivatives' (April 24, 2014). Rotman School of Management Working Paper No. 2428983. <http://ssrn.com/abstract=2428983> or <http://dx.doi.org/10.2139/ssrn.2428983> accessed 4<sup>th</sup> November 2015.

<sup>106</sup> John Hull, 'CCPs, Their Risks, and How They Can Be Reduced' (2012) 20 Journal of Derivatives 1 Fall, 26-29.

represented by conventional assets and liabilities<sup>107</sup>, as is the case of banks, broker-dealers and insurance companies. CCPs involve a nexus of multiple contracts that CMs use to net and mutualise their credit risk. Thus, the management of CCPs' failure requires a regime designed, amongst other aspects, to minimize the distress costs of all market participants, CMs, third parties and taxpayers that could suffer the spill-over costs<sup>108</sup>.

This is not the place to discuss the benefits and limits of CCPs in the OTCDM, but it is worth noting the vulnerable nature of these systemically important financial institutions<sup>109</sup>. A comprehensive insolvency regime is the armour that ensures the robustness and resilience of CCPs, which in turn benefits the stability of the OTCDM and the financial system. A special resolution regime might counter the argument that clearinghouses are weak bulwarks against financial contagion<sup>110</sup>, financial panic, and systemic risk<sup>111</sup>. The updating of the insolvency regime<sup>112</sup> will enhance the use of tools available to provide a better management of CCPs' failure, and will prevent difficulties similar or even greater than those faced during the GFC from arising again.

Despite the fact that the resolution of a CCP is indeed a rare scenario<sup>113</sup>, it cannot be denied that CCPs are subject to a number of risks that could threaten

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<sup>107</sup> Darrell Duffie, 'Resolution of Failing Counterparties' (2014) Stanford University Working Paper N. 3256. December 17<sup>th</sup> <https://www.gsb.stanford.edu/gsb-cmis/gsb-cmis-get-alfresco-doc/382301/notcase> accessed 5<sup>th</sup> November 2015.

<sup>108</sup> *ibid.*

<sup>109</sup> Scott Farrell, 'Too Important to Fail: Legal Complexity in Planning for the Failure of Financial Market Infrastructure' (2014) 29 J.I.B.L.R. 8, 461.

<sup>110</sup> 'One of the three traditional strategies to counter contagion is the ex post resolution procedures that impose losses on the debt and equity holders of financial institutions that are being wound down'. Hal S. Scott, 'Interconnectedness and Contagion' (Committee on Capital Markets Regulation, November 2012) [http://capmktsreg.org/app/uploads/2014/11/2012.11.20\\_Interconnectedness\\_and\\_Contagion.pdf](http://capmktsreg.org/app/uploads/2014/11/2012.11.20_Interconnectedness_and_Contagion.pdf) accessed 10<sup>th</sup> November 2015.

<sup>111</sup> Mark J. Roe, 'Clearinghouse Overconfidence' (2013) 101 CAL. L. REV. 1641 <http://ssrn.com/abstract=2224305> accessed 10<sup>th</sup> November 2015.

<sup>112</sup> Calling for an update of the Bankruptcy regulation after the GFC. Mark J. Roe and Stephen D. Adams, 'Restructuring Failed Financial Firms in Bankruptcy: Learning from Lehman'. Harvard John M. Olin Center for Law, Economics and Business. 32 Yale J. on Reg. 363. [http://www.law.harvard.edu/programs/olin\\_center/papers/pdf/Roe\\_796.pdf](http://www.law.harvard.edu/programs/olin_center/papers/pdf/Roe_796.pdf) accessed 4<sup>th</sup> November 2015.

<sup>113</sup> See Tracy Alloway, 'A Glimpse at Failed Central Counterparties' (FT Alphaville June 2, 2011), <http://ftalphaville.ft.com/2011/06/02/583116/a-glimpse-at-failed-central-counterparties/> accessed 4<sup>th</sup> November 2015.

their viability<sup>114</sup>. CCPs centralise the credit risk of a large part of the OTCDM; as a result, it is possible that they fail<sup>115</sup>. The systemic importance of CCPs and the impact of their potential or actual failure is not merely a theoretical discussion<sup>116</sup>. The GFC showed the prominent role that FMIs have in the midst of financial crises<sup>117</sup>, and inspired the regulatory movement towards the adoption of CCPs in the OTCDM<sup>118</sup>. Therefore, prudential regulators are called to have in place a comprehensive legal framework to resolve CCPs in an orderly manner, avoiding the disturbance of clearing services. When attending to the size of the UK OTCDM<sup>119</sup>, national regulators have an important commitment to have in place a complete regime to ensure (the) CCPs' resilience: one that manages the resolution of CCPs.

The first argument to call for a special resolution regime for CCPs is historical. The failures of clearinghouses in the exchange market show that their systemically important role puts them in a very fragile position and that, like other big financial institutions, they can fail. The most notorious cases of CCPs' failure are *Caisse de Liquidacion*, Paris (1974), Kuala Lumpur Commodity

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<sup>114</sup> CPMI-IOSCO Recovery of FMIs 2014.

<sup>115</sup> Nikil Chande, Nicholas Labelle and Eric Tuer, 'Central Counterparties and Systemic Risk' (Reports Bank of Canada Financial System Review, 2010).

<sup>116</sup> Paul Tucker, 'Central Counterparties in Evolving Capital Markets: Safety, Recovery and Resolution' in OTC derivatives: new rules, new actors, new risks' (Banque de France- Financial Stability Review No. 17 April 2013) <http://www.bankofengland.co.uk/publications/Documents/speeches/2013/speech650.pdf> accessed 2<sup>nd</sup> November 2015.

<sup>117</sup> 'In recent history, CCPs globally have proved themselves to be robust over a set of market-wide events including extreme price volatility and participants default. In terms of participant events, major global CCPs have skilfully managed the crises that involved such as Drexel Burnham Lambert (1990), Barings (1995), GRIFFIN (1998), Enron (2001), Refco (2005) and Lehman Brothers (2008)' Marcus Zickwolff, 'The Role of Central Counterparties in Financial Crisis Recovery' (World Federation of Exchanges, 2010) <http://www.world-exchanges.org/insight/views/role-central-counterparties-financial-crisis-recovery> accessed 5<sup>th</sup> October 2015.

<sup>118</sup> FMIs were a stabilising force in the GFC but in other cases, weaknesses in FMIs led to heightened uncertainty, resulting in disruptions to markets and increased systemic risk'. Chande, Labelle and Tuer, 'Central Counterparties and Systemic Risk' ( n 115).

<sup>119</sup> 'According to the Bank for International Settlements (BIS), the UK is the single largest global venue for OTC derivatives activity: it accounts for almost half of all global activity in interest rate derivatives, and over a third of global activity in foreign exchange derivatives contracts. The UK is also a major centre for the central clearing of OTC derivatives contracts: it is home to four CCPs, which between them account for most of the cleared activity in OTC interest rate derivatives globally, and a substantial proportion of the cleared activity in the other asset classes.' Rahman, ' Over-The-Counter (OTC) derivatives, central clearing and financial stability' (Bank of England) ( n 101) 286.

Clearing House (1983), and Hong Kong Guarantee Corporation (1987)<sup>120</sup>. Moreover, in the wake of the 1987 crash, both Chicago Mercantile Exchange (CME) and the Options Clearing Corporation (OCC) encountered severe difficulties in receiving margin and were near failure<sup>121</sup>.

The French *Caisse de Liquidacion* clearinghouse was closed down in 1974. In the period prior to the failure, the prices in the Paris White Sugar Market were extremely volatile. One of the primary causes of the clearinghouse failure was that the clearinghouse did not increase margin requirements in response to such volatility. Many participants defaulted on margin calls, in particular Nataf Trading House, which held a very large position. Due to the losses of the Nataf Trading House, the Ministry of Commerce closed the sugar market and ordered that any contract would be settled at the average price; the price was higher than when trading was suspended. The Ministry's decision was challenged in Court and two of Nataf's guarantors refused to cover the sums they owed. This resulted in the insolvency of the *Caisse de Liquidacion*.

The case of the Kuala Lumpur Commodity Clearing House in Malaysia was the consequence of a crash in palm oil futures. In this case, six clearing members defaulted on a total of US\$70 million, which led to the complete suspension of trading. National regulators blamed the impact on the market on the CCP - they argued that the CCP stopped operations when there were severe changes in market prices and with the default of the first clearing member.

The third case of CCPs' failure occurred with the Hong Kong Guarantee Corporation (HKGC) in the midst of the 1987 stock market crash. After a period of growth, the prices in the equity market of Hong Kong stock market dropped by almost 50%; the day is called 'Black Monday'<sup>122</sup>. The market was closed for

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<sup>120</sup> Jon Gregory, *Central Counterparties: Mandatory clearing and bilateral margin Requirements for OTC Derivatives* (Wiley Finance Series, 2014) 268.

<sup>121</sup> IMF, 'Making OTC Derivatives Safer: The Role of Central Counterparties (FMI, Global Financial Stability Report, April, 2010).

<sup>122</sup> Allan Greenspan, 'Statement and comments of Alan Greenspan, Chairman of the Federal Reserve,' in "Black Monday," The Stock Market Crash of October 19, 1987 U.S. Congress Senate. Committee on Banking, Housing, and Urban Affairs. Hearing, 100 Congress 1 Session.(Washington).

four days and HKGC had to be bailed out. The decision to bail out HKGC was motivated by the fears of unmet margin calls on purchased equity future positions<sup>123</sup>. Also, there were serious concerns about the ability of the CCP to absorb the losses.

There have been other cases of CCPs' severe financial distress that, although they did not lead to their failure, show the vulnerability of these institutions. In the US, the Chicago Mercantile Exchange (CME)<sup>124</sup>, Options Clearing Corporation (OCC) and the Chicago Board of Trade (CBOT) were very close to failure<sup>125</sup>. According to the report of the Securities Exchange Commission,<sup>126</sup> on several occasions during the week of 'Black Monday', OCCs' clearing members had inadequate funds in their clearing banks to satisfy OCC debit instructions. Thus, clearing banks were forced to decide whether to allow clearing members to overdraft on their account, or to refuse to pay to the OCC. The large moves in and around Black Monday created interlinked problems concerning difficulties in receiving variation margins, extraordinary increases in volumes of trade and unexpected price volatility, as well as a lack of interoperability clearing arrangements.

Finally, the latest case of a CCP in financial distress involved *Bolsa de Valores, Mercadorias & Futuros de Sao Paulo* (BM&FBOVESPA)<sup>127</sup>. In 1999, the President of Brazil decided to release control over the exchange rate. The mass devaluation of the Brazilian Real in respect to the US Dollar was around 50%. The consequence was the failure of two large banks that were clearing members. The collapse was prevented with the bail out of the defaulting banks.

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<sup>123</sup>Mark Carlson, 'A Brief History of the 1987 Stock Market Crash with a Discussion of the Federal Reserve Response' (2007) <http://www.federalreserve.gov/pubs/feds/2007/200713/200713pap.pdf> Accessed 2<sup>nd</sup> November 2015.

<sup>124</sup>Chicago Mercantile Exchange, Committee of Inquiry (1987): Preliminary Report of the Committee of Inquiry, Merton Miller (Chairman), Chicago: Chicago Mercantile Exchange.

<sup>125</sup>Ben Bernanke, 'Clearing and Settlement during the crash' (1990) 3 The Review of Financial Studies 1, 133-151 <http://www.jsec.co.jp/en/data/5.pdf> Accessed 2<sup>nd</sup> November 2015.

<sup>126</sup>U.S. Securities and Exchange Commission, (1988) The October 1987 Market Break.

<sup>127</sup>Gregory, *Central Counterparties: Mandatory clearing and bilateral margin Requirements for OTC Derivatives* (n 120) 270.

There are some common factors that can be identified from the cases described above. In particular, it can be noted the insufficiency of margins and default funds to absorb losses in the event of prices and market volatility, as well as shortcomings in the monitoring of positions of risk(s). The inexistence of mechanisms to control excessive exposure of one of the clearing members, as in *Caisse de Liquidacion*, and inefficient measures to manage clearing members default, along with liquidity strains arising from operational issues faced by CCPs. Recognising that the insolvency of CCPs - although undesirable - can still occur<sup>128</sup>, current regulatory reforms draw several lessons from these historic failures or near-failures of clearing houses. The IMF highlights three lessons<sup>129</sup>. The regulation of margin requirements and the frequent adjustment to secure contract performance, the importance of market surveillance and the authority to manage destabilizing exposures, and the coordination within the clearinghouse to monitor clearing members' positions.

The second reason to argue the need for a special resolution regime attends to the prominent position CCPs have from a risk perspective. CCPs interpose themselves between the two CMs and, as such, assume contractual rights and obligations. From the risk perspective, the most important function of CCPs is to collateralise every transaction. CCPs usually publish a standard methodology for collateralised transaction. This is calculated according to the risk model of the underlying, but it does not consider the creditworthiness of the counterparty<sup>130</sup>, as would be the case in a bilateral transaction<sup>131</sup>. The CCP protects itself and mutualise losses by requiring all CMs to post collateral. The collateral is comprised by initial and variation margins and the default fund contribution whose purpose is to absorb losses. The mutualisation of losses under the CCP structure improves the safety and soundness of the market, whilst at the

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<sup>128</sup> Bob Hills, 'Central Counterparty Clearing Houses and Financial Stability' (Financial Stability Review, June 1999)129.

<sup>129</sup> IMF, 'Making OTC Derivatives Safer: The Role of Central Counterparties' (n 121).

<sup>130</sup> 'Central Clearing eliminates the need for market participants to individually determine counterparty credit risk, as now clearinghouses stand between buyers and sellers'. Silla Bush, 'Dodd-Frank Swap-Clearing Rule Gets CFTC Final Approval' (Bloomberg Nov 29 2012) <http://www.bloomberg.com/news/articles/2012-11-28/cftc-said-to-have-votes-to-complete-swap-clearing-requirement> accessed 10<sup>th</sup> November 2015.

<sup>131</sup> Simon Gleeson, *International Regulation of Banking: Capital and Risk Requirements* (OUP, 2012) 386.

same time the increased use of central clearing increases the systemic importance of the CCP. Thus, the CCP occupies a prominent position in the management of CMs' default, to the extent that all the debts and credits of any insolvent member become subject to insolvent set-off in the hands of the CCP<sup>132</sup>.

Additionally, the systemic role of CCPs in the OTCDM is re(in)stated considering that CCPs mitigate CMs' credit risk by transferring that risk to creditors outside the CCP<sup>133</sup>. This is why CCPs transfer but do not eliminate systemic risk<sup>134</sup>. In this scenario, derivatives dealers are largely interconnected, and only part of their transactions are centrally cleared. That the imposition of risk outside of the CCP may have systemic consequences<sup>135</sup> is precisely due to the fact that SIFIs enter into non-centrally cleared transactions.

#### 4.3.2 Features of CCPs' Insolvency Regime

In the area of the insolvency of systemically important financial institutions (SIFIs), the most recent discussions come from the failure of Lehman Brothers<sup>136</sup>. Although Lehman is not a CCP, it is a case that shows some common features affecting SIFIs in financial distress<sup>137</sup> in the OTCDM<sup>138</sup>, and

<sup>132</sup> Edward Bailey and Hugo Groves, *Corporate Insolvency: Law and Practice* (4<sup>th</sup> edn., LexisNexis 2014) 1409.

<sup>133</sup> Franklin R. Edwards and Edward R. Morrison, 'Derivatives and the Bankruptcy Code: Why the Special Treatment?' (2005) 22 Yale J. on Reg. 91.

<sup>134</sup> Craig Pirrong, 'The Clearinghouse Cure' (2008) 31 Regulation 44, 48, 51.

<sup>135</sup> Mark J. Roe, 'The Dodd-Frank Act's Maginot Line: Clearinghouse Construction 36 (Mar. 5, 2013) (unpublished working paper), available at <http://ssrn.com/abstract=2224305>. in Sean J. Griffith, 'Clearinghouse Hope or Hype?: Why Mandatory Clearing May Fail to Contain Systemic Risk' (2013) 3 HARV. BUS. L. REV. ONLINE 160 <http://www.hblr.org/?p=3261> accessed 10<sup>th</sup> November 2015.

<sup>136</sup> 'The commencement of LBHI's bankruptcy case – the largest by far in U.S. history, with claims well exceeding \$300 billion – provided a contractual basis for a large majority of Lehman's derivatives counterparties to terminate their transactions with Lehman. As a result, more than 80 percent of Lehman's derivatives positions terminated as of, or soon after, the date of the bankruptcy filing' Report of Anton R. Valukas, Examiner, March 11, 2010 (the "*Lehman Examiner's Report*").

<sup>137</sup> Solomon J. Noh, 'Lessons from Lehman Brothers for Hedge Fund Managers: The Effect of a Bankruptcy Filing on the Value of the Debtor's Derivatives Book', (2012) 5 The Hedge Fund Law Report 7, 1 [http://www.shearman.com/~media/Files/NewsInsights/Publications/2012/08/Lesson-from-Lehman-Brothers-for-Hedge-Fund-Manag\\_/Files/View-full-article-Lesson-from-Lehman-Brothers-fo/FileAttachment/BR\\_080112\\_LessonfromLehmanBrosforHedgeFundManag\\_.pdf](http://www.shearman.com/~media/Files/NewsInsights/Publications/2012/08/Lesson-from-Lehman-Brothers-for-Hedge-Fund-Manag_/Files/View-full-article-Lesson-from-Lehman-Brothers-fo/FileAttachment/BR_080112_LessonfromLehmanBrosforHedgeFundManag_.pdf) accessed 10<sup>th</sup> October 2015.

<sup>138</sup> Kimberly Summe, 'Misconceptions About Lehman Brothers' Bankruptcy and the Role

there are some lessons that regulators might want to draw. The insolvency of SIFIs must be able to stabilize the existent contracts effectively<sup>139</sup>. Hence, the special resolution regime should allow the resolution authority to market the contracts of the portfolio at their fundamental value - this is different to the fire sale prices. Moreover, it is also recommended that the resolution authority hold the entire portfolio together and sell it along its product lines<sup>140</sup>, which is challenging due to the large size of such portfolios. Particularly in the case of CCPs,<sup>141</sup> the authorisation for sales along product lines is a place to start<sup>142</sup>. The rationale is to structure the insolvency regime to closeout and liquidate positions in a way so that the portfolio is coherently sold when possible.

The design of a special resolution regime should address some basic questions concerning how to efficiently allocate losses, how to mitigate fire-sales<sup>143</sup> and how to ensure the continuity of the clearing services<sup>144</sup>. In this regard, the industry shares the concern of the consequences of a CCP failure and has advised certain elements that a CCP resolution plan should include. In particular, JP Morgan<sup>145</sup> emphasises the importance that a resolution regime for CCPs effectively limits contagion, avoids pro-cyclicality<sup>146</sup> and ensures the

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Derivatives Played' (2011) 64 STAN . L. REV . 16,18 (noting that "[t]hree primary factors drove Lehman Brothers into bankruptcy, and derivatives trading is not one of them," and that "not one of [Lehman's] derivatives counterparties filed for bankruptcy in the aftermath of its failure").

<sup>139</sup> Roe and Adams, 'Restructuring Failed Financial Firms in Bankruptcy: Selling Lehman's Derivatives' (n 112).

<sup>140</sup> Howell E. Jackson & Stephanie Massman, 'Options for Resolving Distressed Financial Conglomerates' (Harvard Law School Working Paper, May 3, 2015).

<sup>141</sup> Griffith, 'Clearinghouse Hope or Hype?: Why Mandatory Clearing May Fail to Contain Systemic Risk' (n 135).

<sup>142</sup> Roe and Adams, 'Restructuring Failed Financial Firms in Bankruptcy: Selling Lehman's Derivatives' (n 112).

<sup>143</sup> The fire-sale problem refers to the collapse in the price of many types of collateral typically used for initial margin in cleared markets, rising a result of the liquidation of a failed CCP. JP Morgan Chase & Co., 'What is a Resolution Plan for CCPs?' (September 2014) <http://www.jpmorganchase.com/corporate/About-JPMC/document/resolution-plan-ccps.pdf> accessed 9th November 2015.

<sup>144</sup> Darrell Duffie, 'Resolution of Failing Counterparties' (n 107).

<sup>145</sup> JP Morgan Chase & Co., 'What is a Resolution Plan for CCPs?' (n 143).

<sup>146</sup> 'The use of CCPs can address the issue of procyclicality in several ways. Firstly, use of CCPs reduces counterparty credit risk (...) Secondly, by requiring that even highly-rated counterparties post collateral, a CCP can help prevent sudden and large one-off collateral calls, often arising from credit rating triggers, which may severely affect the liquidity and sometimes the solvency of an institution. Thirdly, should a default occur, the CCPs' standardised procedures would ensure that the unwinding of positions is carried out in a more orderly fashion, and therefore should help mitigate contagion risks and spillover effects. Attempting to deal with issues of procyclicality through the use of CCPs may create incentives for market participants to trade bilaterally, which would diminish the degree of counterparty risk reduction that can be achieved'. BIS, 'The Role



continuity of services. The first recommendation is that regulators design a credible recapitalization strategy that seeks to favour recapitalization over liquidation. The benefits of recapitalization include the reduction of fire-sale risk on collateral and it prevents the creation of potential asymmetry of risk across participants, which in turn results in extreme volatility.

In the opinion of JP Morgan, the current framework of loss allocation in cases of CMs' default is inefficient and that is why regulators should design a recapitalization strategy. The shortcoming of the loss allocation rules could be overcome by implementing standard stress tests. EMIR mandates CCPs to conduct stress tests, but at the same time foresees that CCPs apply different sets of stress tests in order to ensure safe and sound risk management<sup>147</sup>. As was explained earlier, the position supported by the Bank of England has been not to design a standard of stress test, but to accompany the bespoke stress tests developed by each CCP<sup>148</sup>. Hence, although (the) international bodies will propose some minimum elements of CCPs' stress tests<sup>149</sup> that will be necessarily followed by the BoE, the standardisation of these tests is not within the regulatory priorities of the Bank. Although the adoption of standardised stress tests is debated, there have been some private initiatives<sup>150</sup> proposing best practices CCP should observe when conducting stress tests, and in that way achieve a certain level of standardisation. The objective of the European CCPs' initiative in this matter is to clarify the meaning of 'extreme but plausible market conditions' - the parameter referred in EMIR to conduct stress tests. In order to achieve a degree of standardisation, CCPs propose a set of best practices for

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of Margin Requirements and Haircuts in Procyclicality' (CGFS Papers No 36, March 2010) <http://www.bis.org/publ/cgfs36.pdf> accessed 10<sup>th</sup> November 2015.

<sup>147</sup> According to EMIR article 42(3) and 43(2), CCP should perform stress tests to quantify whether they have sufficient resources to cover the losses from the default of at least one or two Clearing Members.

<sup>148</sup> Interview Mr. Paul Brione Head of Central Counterparty Supervision, Bank of England, London, 25<sup>th</sup> September 2015.

<sup>149</sup> CPMI-IOSCO started the review of CCPs stress tests in March 2015. BIS, Press Release 11 March 2015. <http://www.bis.org/press/p150311.htm> accessed 9<sup>th</sup> November 2015. A CPMI-IOSCO report for public consultation on all CCP resilience and recovery issues is expected to be published by mid-2016.

<sup>150</sup> European Association of CCP Clearing Houses EACH, 'Best practices for CCPs stress tests'. (April 2015) <http://www.eachccp.eu/wp-content/uploads/2015/07/EACH-paper-Best-practices-for-CCPs-stress-tests-April-2015.pdf> accessed 9<sup>th</sup> November 2015 (Hereinafter EACH Best Practices).

stress tests, which include principles<sup>151</sup> and risk management areas where best practices are needed<sup>152</sup>.

The recurrent discussions<sup>153</sup> and concerns show that there is an important pending task regarding the design and implementation of CCPs' stress tests. It would be advisable for the BoE to be more proactive in this area. Indeed, the FSB recognises that one of the substantive priorities with respect to CCP resilience is the review of existing stress testing policies<sup>154</sup>. Accordingly, the recommendation of the FSB is to implement a 'supervisory stress test' as a complement to the CCPs' internal stress tests. The adoption of a common framework would enhance confidence in the adequacy of CCPs' resources and allow the comparison of those resources among CCPs<sup>155</sup>. Similarly, the implementation of a stress test framework would assist regulators in the identification of macro-prudential risks<sup>156</sup> arising from CCPs in stressful scenarios.

Duffie recommends the use of different techniques to crystallise the losses to counterparties and to contractually restructure their clearing payment obligations to CMs<sup>157</sup>. One is the procedure known as Variation Margin Gains Haircutting (VMGH)<sup>158</sup>. According to this technique, when the default fund is insufficient to absorb losses, the CCP can 'reduce ('haircut') pro rata across all CMs the variation margin payments that it is due to make to CMs whose positions (in the relevant clearing services) have increased in value since the

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<sup>151</sup> Principles of Relevance, Structure, Governance and Transparency. EACH Best Practices *ibid*.

<sup>152</sup> Stress Test Scenarios, period of risks, stress positions and practices, stress liquidity, aggregation, collateral, and disclosure, among others. EACH Best Practices *ibid*.

<sup>153</sup> Considers the need for CCPs to make their stress test data more transparent. Farah Khaliq, 'Countdown begins to clearing house resilience rules' (2015) 13 G.R.R.5, 14-15.

<sup>154</sup> FSB, 'Progress Report on the CCP Workplan' (22 September 2015) <http://www.financialstabilityboard.org/wp-content/uploads/Progress-report-on-the-CCP-work-plan.pdf> accessed 9th November 2015.

<sup>155</sup> *ibid*.

<sup>156</sup> *ibid*.

<sup>157</sup> Darrell Duffie, 'Resolution of Failing Counterparties' (n 107).

<sup>158</sup> Craig Pirrong, 'ISDA The Economics of Central Clearing: Theory and Practice' (University of Houston, May 2011) [https://www2.isda.org/attachment/MzE0Ng==/ISDAdiscussion\\_CCP\\_Pirrong.pdf](https://www2.isda.org/attachment/MzE0Ng==/ISDAdiscussion_CCP_Pirrong.pdf) accessed 9th November 2015.

default'<sup>159</sup>. The shortfall of the VMGH might be the unexpected consequences regarding the potential reaction of end-users liquidating assets in order to raise funds. This could result in a decrease of the assets value and the creation of a pro-cyclical scenario that further destabilises the market<sup>160</sup>.

The second contractual restructuring approach is a 'tear-up'. The tear-up technique is used in very extreme scenarios to return to a matched book. The tear-up consists of 'cash settlement and cancellation without reopening open contracts'<sup>161</sup>. The price might be based on the price used to calculate the most recent variation in margin requirements<sup>162</sup>. Although the technique might encourage CMs to reduce the size of their positions with weak CCPs, the problem with tear-ups is that they share losses unpredictably, which is not efficient and discourages CMs who expect to suffer moderate and predictable losses<sup>163</sup>.

However, as might be anticipated, VMGH and tear-ups are more recovery than resolvability techniques. Along with them, CCPs have the Default Fund or 'Guarantee Fund', that receives contributions from all clearing members and is called to meet the losses in case that they exceed a defaulting member's initial margin<sup>164</sup>. Thus, only when all the available resources and contractual proceedings are inadequate and insufficient, will a resolution be the alternative. In this matter, JP Morgan suggests that one alternative to ensure that all market participants are fully funded is to enforce their liability. The rationale of the proposal is to use the standard stress tests to measure the upfront obligation of each participant and, in that way, remove all the uncertainty regarding the sufficiency of funds in extreme circumstances. The idea of JP Morgan

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<sup>159</sup> David Elliot at the Bank of England describes the process for VMGH and the potential advantages over insolvency. David Elliott, 'Central Counterparty loss-allocation rules' (n 82).

<sup>160</sup> JP Morgan Chase & Co., 'What is a Resolution Plan for CCPs?' (n 143).

<sup>161</sup> David Elliott, 'Central Counterparty loss-allocation rules' (n 82) 8.

<sup>162</sup> *ibid.*

<sup>163</sup> Duffie, 'Resolution of Failing Counterparties' (n 107).

<sup>164</sup> Fergus Cumming and Joseph Noss, 'Assessing the adequacy of CCPs' default resources' ('Bank of England, Financial Stability Paper N 26, November 2013) 4 [http://www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs\\_paper26.pdf](http://www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs_paper26.pdf) accessed 9th November 2015.

contributes to ensure the adequacy of resources to mutualise losses and would take the regime closer to achieve the ‘default-free’ expectation. However, the drawback of such a proposal is the heavy burden put on CMs and the hurdles imposed by the conditions to meet such requirements. Indeed, there are already complaints and critiques regarding the higher margin requirements that the reforms have brought for both cleared and un-cleared derivatives. Therefore, a reform seeking to increase the pre-funding of all loss-absorbency resources would be even more rejected by market participants, and by regulators that are interested in supervising the market but do not want to squeeze it by making central clearing even more costly.

Despite the critiques that the imposition of higher or additional contributions from CMs to common or ‘recapitalization’ funds might have, it seems to be the predominant alternative. The joint 2015 CCP work plan called for the FSB Resolution Steering Group (ReSG) to ‘assess the need for additional prefunded financial resources (including capital) and liquidity arrangements in resolution and to develop a proposal’<sup>165</sup>. The rationale is to create a fund that will operate only when the recovery mechanisms have been exhausted and the CCP is not viable anymore. The fund will include contributions from CMs and CCPs and will be triggered when the resolution authority considers it to be pertinent. Such recapitalization funds will be the new default funds while the CCP recovers stability. Additionally, CCPs can opt to obtain liquidity through financing. In this case, it is advisable to grant a security over the non-cash assets. Duffie<sup>166</sup> explains that such securities can grant over initial margins or the default fund, and claims to future contributions of CMs.

Similarly, the resolution authority needs to be allowed to intervene quickly<sup>167</sup> and to step in the current contract. At the same time, the special

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<sup>165</sup> FSB, ‘Progress Report on the CCP Workplan’ (2015) (n 154).

<sup>166</sup> Duffie, ‘Resolution of Failing Counterparties’ (n 107).

<sup>167</sup> Squam Lake Working Group on Financial Regulation, ‘Improving Resolution Options for Systemically Relevant Financial Institutions’ (Working Paper Centre for Geoeconomic Studies, October 2009). <http://www.cfr.org/financial-crises/improving-resolution-options-systemically-relevant-financial-institutions/p20558> accessed 5<sup>th</sup> November 2015.

resolution regime for CCPs should ensure that there are client asset rules that protect CMs and clients' rights. The FSB advises<sup>168</sup> that segregation rules applicable during a crisis and resolution of the CCP allow for the rapid return of segregated assets to their clients or the transfer to a third party or bridge institution.

Additionally, the CCPs' insolvency regime should be consistent with international efforts to deal with cross-border issues<sup>169</sup>. The FSB have published guidance pursuing its commitment to develop policy proposals on how legal certainty in cross-border resolutions can be further enhanced<sup>170</sup>. Hence, the FSB published the Principles for Cross-Border Effectiveness of Resolution Actions<sup>171</sup> that set out statutory and contractual mechanisms that jurisdictions should consider including in their legal framework to give cross-border effect to resolution actions in accordance with the *Key Attributes*<sup>172</sup> and its *FMI Annex*.

In this regard, the ReSG agreed to establish by the end of 2015 a working group called Cross-border Crisis Management Group for FMIs (*fmiCBCM*). The *fmiCBCM* will monitor progress in the development of resolution strategies and operational resolution plans for CCPs and of institution-specific cross-border cooperation agreements (COAGs), and the establishment of Crisis Management Groups (CMGs) for CCPs. Similarly, the *fmiCBCM* will clarify how the resolution powers of the Key Attributes and their FMI Annex would be

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<sup>168</sup> Annex 3: Client Asset Protection in Resolution. FSB, 'Key Attributes of Effective Resolution Regimes for Financial Institutions' (n 87).

<sup>169</sup> 'The joint 2015 CCP workplan called for the FSB Resolution Steering Group (ReSG) (i) to conduct a stock-take of existing CCP resolution regimes and resolution planning arrangements; (ii) to consider the need for, and develop as appropriate, more granular standards or guidance for CCP resolution planning, resolution strategies and resolution tools, including cross-border coordination and recognition of resolution actions' FSB, 'Progress Report on the CCP Workplan' (2015) (n 154).

<sup>170</sup> At the St Petersburg G20 summit in 2013 the FSB made the commitment. FSB, 'Progress and Next Steps Towards Ending 'Too-Big-To-Fail' ('TBTF') (n 99).

<sup>171</sup> FSB, 'Principles for Cross-Border Effectiveness of Resolution Actions (3rd November 2015) <http://www.financialstabilityboard.org/2015/11/principles-for-cross-border-effectiveness-of-resolution-actions/> accessed 5th November 2015.

<sup>172</sup> FSB, 'Key Attributes of Effective Resolution Regimes for Financial Institutions' (n 87). The Key Attributes incorporate guidance on their application to non-bank financial institutions and on arrangements for information-sharing. The first annex sets out guidance on resolution of financial market infrastructures (FMIs), including Central Counterparties (CCPs), and resolution of systemically important FMI participants, and the third annex sets out guidance on client asset protection in resolution.

exercised. The FSB anticipates some of the issues that will be further analysed by the *fmiCBCM*. These relate to legal structures, the arrangement of clearing activities or other services, relationships and interdependencies between the CCP and participants, links with other FMIs, CCP rules including default management and recovery procedures, and financial resources including liquidity arrangements.

Although the work of the *fmiCBCM* in cooperation with CPMI-IOSCO is expected by the end of 2016, it might be anticipated that the final proposal will highly likely involve additional pre-funded resources and arrangements, as well as further guidance about resolution planning.

Finally, in the process of regulating the insolvency of a CCP, it is advisable that UK regulators consider the risks that CCPs face in the event of CMs' insolvency<sup>173</sup>, and how it might threaten the stability of the CCP<sup>174</sup>. The relevant insolvency rules governing the contracts in which a clearinghouse is part are contained in the Companies Act 1989 Part VII (CA 1989 P VII). These rules apply to the insolvency of clearinghouses and their counterparts in the exchange markets and to the counterparts of CCPs operating in the OTCDM<sup>175</sup>. The CA 1989 P VII operates in conjunction with the Recognition Requirements for Investment Exchanges and Clearing Houses of the FSMA 2000 and Recognition Regulations 2001. CA 1989 P VII disapplies the general law of insolvency from the operation of the default rules of recognised investment exchanges and

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<sup>173</sup> The Insolvency of Clearing Members (CMs) is ruled by Part VII Companies Act (CA)1989 or if the CM is a Bank the Special Resolution Regime of the Banking Act 2009.

<sup>174</sup> 'It is worth reemphasising that CCP recovery and resolution cannot be considered in isolation from the recovery and resolution regimes that have already been introduced for their clearing members'. LCH Clearnet, CCP Risk Management, Recovery and Resolution' (LCH Clearnet, Whitepaper 1.2 Policy Issues) <http://www.lchclearnet.com/documents/731485/762448/final+white+paper+version+three.pdf/1d1700aa-a1ae-4a6c-8f6f-541eec9b7420> accessed 29<sup>th</sup> February 2015.

<sup>175</sup> The Recognised bodies and insolvency practitioners have agreed a protocol. This guidance has been drawn up to facilitate a closer understanding of the regime in Part VII of the Companies Act 1989 and management of the respective responsibilities of recognised bodies (RBs) providing central counterparty services and insolvency practitioners (IPs) in a default situation. FSA, 'Cooperation Guidance Between Recognised Bodies and Insolvency Practitioners to Assist Management of Member Defaults by Recognised Bodies (Recognised Clearing House Version)

<http://www.bankofengland.co.uk/financialstability/Documents/fmi/Insolvency%20practitioners.pdf> accessed 6<sup>th</sup> November 2015.

clearing systems<sup>176</sup>. The default rules are the clearing house rules which provide for the taking action in the event of a person appearing unable, or likely to be unable, to meet his/her obligations in respect of one or more market contracts connected with the exchange or clearing house<sup>177</sup>. According to Section 188 (2) of the CA 1989, in the event of a person's default the clearinghouse concerned must close out on the defaulter's position and realise the defaulter's property prior to any action, which an insolvency office-holder may take under general law.

The aim of the CA 1989 is to safeguard the operations of financial markets. Hence, the Act rules the insolvency, winding up or default of a counterparty to transactions in the market<sup>178</sup>. It also rules the effectiveness or enforcement of certain charges given to secure obligations in connection with market transactions - these are market charges<sup>179</sup>. Regarding market property, the CA 1989 includes the rights and remedies<sup>180</sup> in relation to assets provided as margin or default fund contribution in relation to such transactions or subject to such a charge.

In this regard, CME Clearing Europe in its Accounts Disclosure Document<sup>181</sup> noted some of the consequences and foreseeable issues arising from CMs' insolvency. The first concern is the operation of the automatic set-off<sup>182</sup> that under English Law does not allow the distinction between the various client accounts and will most likely set off amounts across all those accounts and against the CM's House Account. The CCP will not be able to calculate net sums per client account and the porting system will not operate as expected. When porting has not been possible, in the event of the insolvency of a CM it is probable that any payments made to the CM for the account of the client get

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<sup>176</sup> Bailey and Groves, *Corporate Insolvency: Law and Practice* (n 132)1411.

<sup>177</sup> Companies Act 1989 (CA 1989), s 188 (1).

<sup>178</sup> CA 1989, ss 155-172.

<sup>179</sup> CA 1989, ss 173-176.

<sup>180</sup> CA1989, ss 177-181.

<sup>181</sup> CME Clearing Europe Ltd. Accounts Disclosure Document (n 36).

<sup>182</sup> Set-off is the discharge of reciprocal obligations to the extent of the smaller obligation. It is a form of payment'. In insolvency, set-off is a means by which a creditor is paid on the insolvency of a debtor and the choice is between paying the creditor or paying the insolvent debtor'. Philip Wood, *Set-off and Netting, Derivatives, Clearing Systems* (Sweet & Maxwell, 2007) 5.

trapped in the insolvency proceedings<sup>183</sup>. As a result, the client will be an unsecured creditor of the amounts owed to it by the CM, assuming the risk of not being repaid at all. The second potential issue concerns the rules of transaction avoidance and claw-back – these include transactions at undervalue and preferences<sup>184</sup>. The claw-back provision<sup>185</sup> would allow the liquidator or administrator of the CM to challenge transactions entered into by the company property.

Finally, a third cause of concern is the applicability of the protection included in CA 1989 Part VII. CME<sup>186</sup> considers that it is not clear whether Part VII eliminates the risk that an insolvency official might challenge the close out after completion of the default proceedings, which is a challenge that is allowed in English insolvency law. One possible interpretation is to understand that the protection of Part VII benefits the CCPs' porting arrangements, because they are part of the settlement of a CM client positions under the default rules.

### **4.3.3 Shortcomings of the CCPs' Insolvency Regime**

Until this point, this research has explored the importance of designing a Special Resolution Regime for CCPs and recommendations regarding its content. This section highlights certain shortcomings that such a regime may have concerning the rights of CMs and clients.

#### **4.3.3.1 Enforcement of Clearing Members' rights**

Regulators need to be particularly careful when adopting rules that restrict the possibility for CMs and clients to enforce their rights in front of the

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<sup>183</sup> CME Clearing Europe Ltd. Accounts Disclosure Document ( n 36)

<sup>184</sup> *ibid.*

<sup>185</sup> 'Can a liquidator or an administrator challenge or unwind transactions entered into by the company before it was wound up or entered into administration?' Lexis Nexis Practice Notes <https://www.lexisnexis.com/uk/lexispsl/restructuringandinsolvency/document/393783/55MK-MBW1-F18D-T2XC-00000-00/Can+a+liquidator+or+an+administrator+challenge+or+unwind+transactions+entered+into+by+the+company+before+it+was+wound+up+or+entered+into+administration%3F> accessed 20<sup>th</sup> October 2015

<sup>186</sup> CME Clearing Europe Ltd. Accounts Disclosure Document ( n 36).



defaulting CCP. Particularly when the regime restricts the right to terminate contracts in the case of CCP's insolvency, as suggested by the FSB<sup>187</sup>. Analysing the Australian experience, Farrell<sup>188</sup> argues that the adoption of special resolution regimes for CCPs could lead to a competition between recovery and resolution rules. This is, for instance, the competition between the close-out netting rights of participants and the restrictions imposed on this matter in a new insolvency regime. The consideration is for regulators to design a resolution regime that interferes to a lesser extent with the existent recovery regime.

In the European Union, one obstacle to the effective resolution is the risk that counterparties exercise termination rights in derivatives contracts<sup>189</sup> according to the Financial Collateral Arrangements Directive (FCAD)<sup>190</sup>. As the exercise of such rights would be greatly disruptive and bring the risk of contagion<sup>191</sup>, it is advisable to remove this obstacle in a resolution regime for CCPs<sup>192</sup>. However, the experience of the Banking Resolution Regime shows that the implementation of suspension of rights provisions might be problematic in a cross-border scenario<sup>193</sup>. The FSB<sup>194</sup> recommended the use of contractual mechanisms to achieve cross-border recognition. Following this recommendation, ISDA developed a Resolution Stay Protocol<sup>195</sup>. The protocol

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<sup>187</sup> FSB, 'Application of the Key Attributes of Effective Resolution Regimes to Non-Bank Financial Institutions: Consultative Document' [http://www.financialstabilityboard.org/wp-content/uploads/r\\_141015.pdf](http://www.financialstabilityboard.org/wp-content/uploads/r_141015.pdf) accessed 4<sup>th</sup> November 2015. 'In 2013 the FSB announced that one of its tasks was to develop proposals for contractual or statutory approaches to prevent early termination of financial contracts'. FSB, 'Progress and Next Steps Towards Ending 'Too-Big-To-Fail' ('TBTF')' (n 99)

<sup>188</sup> Farrell, 'Too Important to Fail: Legal Complexity in Planning for the Failure of Financial Market Infrastructure' (n 109) 467.

<sup>189</sup> BCBS-IOSCO Final Report on Margin for Derivatives (September 2013).

<sup>190</sup> Directive on financial collateral arrangements (2002/47/EC). Implemented in the UK by the Financial Collateral Arrangements (No. 2) Regulations 2003.

<sup>191</sup> Tucker, 'Central Counterparties in Evolving Capital Markets: Safety, Recovery and Resolution' Resolution' in OTC derivatives: new rules, new actors, new risks' (n 116).

<sup>192</sup> For Banks Chapters V and VI of the RRD confer the power to authorities to suspend termination rights.

<sup>193</sup> Financial Services and Markets Group Backer McKenzie, 'Bank recovery and resolution - ending the spectre of "too big to fail' (May 2015) <http://www.bakermckenzie.com/files/Uploads/Documents/Alumni/Legal%20Alert.pdf> accessed 5<sup>th</sup> November 2015.

<sup>194</sup> FSB, 'Cross-border recognition of resolution action' (FSB, Consultative Document, 29 September 2014).

<sup>195</sup> ISDA 2014 Resolution Stay In Protocol <https://www2.isda.org/functional-areas/protocol-management/protocol/20> accessed 5<sup>th</sup> November 2015.

enables counterparties to opt voluntarily<sup>196</sup> into the stay and suspension provisions by agreeing a change to their ISDA derivatives contracts.

The form of the collateral also raises some concerns that affect the relationship between the clearing member and the CCP<sup>197</sup>. If the collateral is provided in cash there is a transfer of ownership from the clearing member to the CCP, and therefore the clearing member would assume the category of CCP's unsecured creditor. In contrast, when collateral is in non-cash assets clearing members may retain property rights; they transfer the non-cash assets to an account of the CCP, and grant a security interest over those assets. As a result, CCP takes first fixed charge to secure the clearing members' performance of its obligations, but as the clearing member keeps the proprietary rights those assets are protected in case of CCPs' insolvency.

#### **4.3.3.2 Bail-out CCPs?**

Moreover, one of the fundamental principles that regulators have made clear from the beginning is that they do not allow the use of public sources<sup>198</sup> to bail out CCPs. Therefore, the development of a comprehensive special resolution regime for CCPs is pivotal to complete the regime. Such a regime will take into account the specifics that CCPs have, and that make the regime different from the regulation of banks' resolvability, that is by the time of writing of this research the regulation applicable to the resolvability of CCPs. The BoE is expecting the European Commission to give guidance regarding the resolvability of CCPs.

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<sup>196</sup> 'The first wave of voluntary adoption of the Protocol occurred in early November 2014 and includes eighteen major banks and certain of their affiliates'. Financial Services and Markets Group Backer McKenzie, 'Bank recovery and resolution - ending the spectre of "too big to fail" (n 193); ISDA designated a cut-off date under the protocol of November 2, 2015.

<sup>197</sup> Joanne Braithwaite, 'Private Law and the Public Sector's Central Counterparty Prescription for the Derivatives Markets (LSE Legal Studies Working Paper No. 2/2011) <http://ssrn.com/abstract=1791740> accessed 13<sup>th</sup> January 2016.

<sup>198</sup> 'Too Big to Bail' the danger of preannouncing support mechanisms is that this can increase moral hazard through expected reliance and consequent increased risk-taking (...) A number of facilities should be incorporated within a new support enhancement programme. The core measures include: a liquidity support facility'. George Walker, 'Systematically Important Institution Too Big to Fail'. (Financial Regulation International October 26<sup>th</sup>, 2012).

This research argues that the advances regarding the BoE intervention powers as the resolution of authority of CCPs help to prevent the bailout scenario. Firstly, the existence of a resolution authority ensures that all recovery and resolution measures are exhausted before considering the use of public sources to save the CCP. Secondly, the existence of a resolution authority deters CCPs from thinking that they are too important to be intervened or restructured, and that the solution at hand is to bail them out. Thus, the fact that the Bank is bestowed with the powers to restructure a CCP prevents the CCP from taking excessive risks that could lead to its failure. Moral hazard in this context would arise if a CCP believes that it will automatically receive an emergency liquidity or bailout if it becomes insolvent<sup>199</sup>. The UK authorities have been reluctant to accept that, even in a very extraordinary event, CCPs would be bailed-out and to invest the BoE as the authority to make the decision. However, given the extreme circumstances, it is still unclear whether a bailout would be provided. The House of Lords published a report and questioned CCPs about their interest in having access to the Bank of England's liquidity line<sup>200</sup>. Whilst the general opinion of CCPs, particularly that of LCH Clearnet noted that there were times when central bank liquidity would be beneficial, there were also arguments supporting the idea that the CCPs' business model should never rely on central banks' liquidity assistance<sup>201</sup>, because of the moral hazard issues this might raise.

Furthermore, the approach of the BoE is that liquidity is primordially a concern of the CCP. However, the Bank accepts that there should be no technical obstacles to the provision of liquidity<sup>202</sup> to a CCP that temporarily and

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<sup>199</sup> Christian Chamorro-Courtland, 'The Trillion Dollar Question: Can a Central Bank Bail-Out a Central Counterparty (CCP) Clearing House which is 'Too Big To Fail'?' (2012) Brook. J. Corp. Fin. & Com. L., Spring/March.

<sup>200</sup> House of Lords, 'The future regulation of derivatives markets: is the EU on the right track? - European Union Committee'. Ch 5 The EU regulation of CCP clearing houses (2009) <http://www.publications.parliament.uk/pa/ld200910/ldselect/lducom/93/9308.htm> accessed 5<sup>th</sup> November 2015.

<sup>201</sup> 'Roger Liddell, CEO of LCH.Clearnet, commented that personally he believed businesses should never rely on the central bank providing liquidity as a last resort, because of the moral hazard issues this raised. The business models of businesses should assume that they would receive no support in the event of a crisis (QQ 137-9)' House of Lords, 'The future regulation of derivatives markets: is the EU on the right track? - European Union Committee' *ibid*.

<sup>202</sup> In line with other central banks work in 2012. See the FSB's 'OTC derivatives market reforms: third progress report on implementation', (FSB, Third Progress Report, June 2012) [http://www.financialstabilityboard.org/wp-content/uploads/r\\_120615.pdf](http://www.financialstabilityboard.org/wp-content/uploads/r_120615.pdf) accessed 9<sup>th</sup> November 2015.

exceptionally needs it. Hence, as explained earlier, in November 2014 the Bank widened access to its sterling facilities to include CCPs<sup>203</sup>. Having access to the Sterling Monetary Framework means that, in the event of a CM default, the CCP can use the margin posted by that CM or other assets as collateral to obtain sterling liquidity from the Bank<sup>204</sup>.

#### **4.3.3.3 Clearing member's play as the ultimate underwriters**

There is the issue concerning the role clearing member's play as the ultimate underwriters of CCP default risk. The structure of the CCPs recognised and authorised in the UK is that of the demutualised CCPs, which means that the ownership is separated from the clearing participation. CMs are not the owners of the CCP, but they participate in the mutualisation of losses. As was explained, the default waterfall varies according to the CCP's default rules, but in general it starts with the initial margin of the defaulting member; it then moves to the default fund contribution of the member, followed by default fund contributions of other members and the last resort for the equity of the CCP. When all these resources are exhausted, the CCP becomes insolvent. Then, one alternative is to ask clearing members for additional funds to prevent the closure of the CCP, and in that scenario CMs become underwriters of the CCP.

This de-mutualised structure and its relationship with the waterfall default bring some questions that are partially solved by the regulators in the UK. For instance, in the event a CCP cannot effectively manage the risk of insolvency, CMs would have to assume such a risk themselves. Hence, clearing members might want to see more CCP capital committed to the default resources, arguing that CCPs are not properly incentivised to manage risk.

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<sup>203</sup>The Bank of England is widening access to its Sterling Monetary Framework (SMF) to accept broker-dealers and central counterparties (CCPs) (Bank of England, News Release, 2014) <http://www.bankofengland.co.uk/publications/Pages/news/2014/144.aspx> accessed 9<sup>th</sup> November 2015.

<sup>204</sup>Rahman, 'Over-The-Counter (OTC) derivatives, central clearing and financial stability' (Bank of England) (n 101) 291.

Ben Bernanke argues that the requirement for the surviving participant to provide more funds to the insolvent CCP, as a measure to contribute to its recovery, does not extend to the CCP's failure<sup>205</sup>. However, the international standards of the FSB, CPMI and IOSCO seem to be moving towards creating an additional fund, which will be largely formed with CMs' contributions. Indeed, in recent discussions, CMs have argued that there is a need to review clearing membership requirements, collateral eligibility, the availability of certain recovery tools and the bespoke nature of CCP rulebooks<sup>206</sup>. At first sight it seems that, while regulators are privileging the stability of CCPs and re-insuring that these 'too-big-to fail' institutions are not going to be bailed out, they are indirectly transposing the burden to CMs. The problem with such an approach is that, instead of promoting the use of central clearing, which is one of the initial objectives of the post-GFC reforms, it is discouraging market participants from trading in the OTCDM.

This research argues that, if the tendency of the coming regulation is to impose further funding requirements to CMs, it will be necessary that regulators intervene to 'rebalance' the relationship between CCPs and their members. In order to achieve such symmetry, regulators are expected to design more rigorous stress tests, with complete disclosure of results. Lastly, CMs and clients want to see all default management actions available to CCPs defined *ex ante*, arguing that this should eliminate the need for CCPs to have emergency powers<sup>207</sup>.

#### 4.3.3.4 Ring-Fencing of CCPs?

The purpose of this section is to address the question concerning the use of Ring-Fencing as a regulatory solution to manage CCPs' financial distress. To that end, it explains ring-fencing and its uses. It explores what type of OTCDM failures ring-fencing could help to solve. It then argues the benefits and limits

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<sup>205</sup> Ben Bernanke, 'Clearing and Settlement during the Crash' (1990) 3 The Review of Financial Studies 1, 133.

<sup>206</sup> FIA, 'FIA Global CCP Risk Position Paper' (April, 2015) <https://fia.org/articles/fia-global-issues-recommendations-central-clearing-risks> accessed 5<sup>th</sup> October 2015. These issues also were discussed at the Federal Reserve Bank of Chicago's 2015 Clearing Symposium.

<sup>207</sup> *ibid.*

tied to the adoption of ring-fencing for CCPs, as Systemically Important Financial Institutions (SIFIs).

#### **4.3.3.4.1 Taxonomy of ring-fencing**

Ring-fencing is usually defined according to the functions it performs. In a regulatory context, ring-fencing refers to the legal deconstruction of a firm in order to more optimally reallocate and reduce risks<sup>208</sup>. It is a regulatory tool that helps to protect the firm from becoming subject to liabilities and other risks associated with bankruptcy<sup>209</sup>. Hence, ring-fencing is one tool regulators tend to use to mitigate systemic risk<sup>210</sup> and to manage the too-big-to-fail problem<sup>211</sup> related to Systemically Important Financial Institutions (SIFIs).

There are multiple functions and uses of ring-fencing. Professor Schwarcz<sup>212</sup> classifies those functions at firm-level and market-level. Hence, he argues that, at firm-level, ring-fencing might be used to make a firm bankruptcy remote, to help a firm operate on a standalone basis, to preserve a firm's business and assets, and to limit a firm's risky activities and investments. Whilst at market level, ring-fencing might contribute to correct market failures and to protect against systemic risk.

##### **4.3.3.4.1.1 Functions of ring-fencing at firm-level**

To make a firm "bankruptcy remote" means to protect a firm from becoming subject to liabilities and risks derived from bankruptcy. This practice is commonly used in securitisation<sup>213</sup> and covered bond transactions<sup>214</sup>. In these

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<sup>208</sup> Steven L. Schwarcz, 'Ring-Fencing' Southern California Law Review (Nov.2013).

<sup>209</sup> Steven L. Schwarcz, 'The Conundrum of Covered Bonds' (2011) 66 Bus. Law. 567.

<sup>210</sup> Daniel K. Tarullo, 'Regulation of Foreign Banking Organizations' (Yale School of Management Leaders Forum, New Haven, Connecticut, Nov 28 2012) <http://www.federalreserve.gov/newsevents/speech/tarullo20121128a.htm> accessed 31<sup>st</sup> January 2016.

<sup>211</sup> Charles Randell, 'The Great British Banking Experiment: Will the restructuring of UK banking show us how to resolve G-SIFIs?' (2012) 6 Law and Financial Markets Review 1, 39.

<sup>212</sup> Schwarcz, 'Ring-Fencing' (n 208).

<sup>213</sup> Thomas J. Gordon, 'Securitization of Executory Future Flows as Bankruptcy Remote True Sales' (2000) 67 U. Chi. L. Rev. 1317.

<sup>214</sup> Schwarcz, 'The Conundrum of Covered Bonds' (n 209).

transactions, the ring-fenced firm is the Special Purpose Vehicle (SPV) whose creditworthiness is protected. As a result, the SPV is able to issue securities at lower costs than if the affiliated firm issued them<sup>215</sup>. For CCPs, “bankruptcy remoteness” would mean that their own assets are protected in case of financial distress or insolvency. This is possible when there is a separation of the CCP’s assets related to clearing services and other business. This occurs if CCPs are legally structured as SPVs<sup>216</sup>. In a group of CCPs, operated in a silo-by-silo basis, the “bankruptcy remoteness” is predicable to the assets of the CCP parent or SPV. These assets are not designated for loss-sharing of ‘subsidiaries’ CCPs. One example of a CCP operating under this structure is LCH. Clearnet that currently operates seven different CCPs<sup>217</sup>. The principal benefit of using ring-fencing to achieve “bankruptcy remoteness” is to protect CCPs from voluntary or involuntary bankruptcy<sup>218</sup> proceedings.

The CCP’s “bankruptcy remoteness” is different from the bankruptcy remoteness of CM clients’ positions and assets as mandated in the CRR<sup>219</sup>. According to section 305 (2) of the CRR, clients’ assets will not be available to cover losses of the clearing member or other clients following the default of the clearing member or one or more of its other clients. This is because CM clients’ assets are bankruptcy remote.

Ring-fencing can help the firm to operate on a standalone basis. This is to ensure that the ring-fenced firm is able to operate alone even if its affiliated firms fail<sup>220</sup>. This function of risk-fencing could be adapted to CCPs. The question here is whether ring-fencing is required to ensure the stability of CCPs in the event of

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<sup>215</sup> Steven L. Schwarcz, ‘Securitization Post-Enron’ (2004) 25 Cardozo L. Rev 1539 in Schwarcz, ‘Ring-Fencing’ (n 208) 6.

<sup>216</sup> Darrell Duffie, ‘Resolution of Failing Central Counterparties’ in Kenneth E. Scott, Thomas H. Jackson & John B. Taylor (eds), *Making Failure Feasible: How Bankruptcy Reform Can End ‘Too Big to Fail’* (Hoover Institution Press, Stanford University, 2015) 97.

<sup>217</sup> *ibid* 97.

<sup>218</sup> Schwarcz, ‘Ring-Fencing’ (n 208) 8.

<sup>219</sup> CRR (Regulation 575/2013): Recitals (81) to (86); Arts 107, 300 -311 and 497; Annex II; Basel III contains, and CRD IV implements, a framework for calculating the counterparty credit risk associated with exposures to central counterparties (CCPs). According to s 305 CCR the client would “bear no losses” on account of the insolvency of the clearing member or its other clients.

<sup>220</sup> Steven L. Schwarcz, ‘Ring-Fencing: Functions and Conceptual Foundations’ (March 28, 2013). <http://clsbluesky.law.columbia.edu/2013/03/28/ring-fencing/> accessed 31<sup>st</sup> January 2016.

CMs' insolvency. This is because the current regime of CCPs in the OTCDM includes some requirements concerning the capability of CCPs to stay solvent and manage CMs' default. According to the PFMI, the *Key Attributes*<sup>221</sup> and EMIR, CCPs must be able to manage the default of the two largest CMs. This means that, although CMs are not exactly 'affiliates' of the CCP, in the sense of a corporate group structure, there is a connection between CMs solvency and the CCP's management of CMs' default. Therefore, the role of ring-fencing in this area would be secondary and duplicative, as a reinforcement of the protection of CCPs in case of CMs insolvency.

The function of ring-fencing to preserve a firm's business and assets prevents affiliated firms from taking advantage of the ring-fenced firm<sup>222</sup>. In the context of CCPs offering clearing services to CMs and CMs' clients, the structure of the legal relationship between CCPs and CMs neglects the possibility that CMs could take advantage of CCPs' business and assets. In particular, the rules of segregation and portability of CMs' positions and assets, determine a clear dividing line between CCPs' assets and those of CMs. To meet these goals, as was explained earlier, EMIR and UK regulators should solve some issues. The first source of concern is that the 'legal segregation' of EMIR works in an ideal scenario where the records of the CCP and the CM coincide, but if they are different there is a potential source for litigation. Similarly, 'legal segregation' does not necessarily mean that collateral is also operationally segregated<sup>223</sup>. Operational segregation means that collateral is held in different segregated accounts. Thus, the formality of the segregation obligation is a step towards clearing members and clients' assets protection, but it does not ensure the actual separation of assets. Therefore, if ring-fencing is to be adopted for CCPs, then this is not one of the functions it would perform.

The last function of ring-fencing at a firm-level is to limit a firm's risky activities and investments<sup>224</sup>. The objective is to reduce the probability and

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<sup>221</sup> FSB, 'Key Attributes of Effective Resolution Regimes for Financial Institutions' (n 87).

<sup>222</sup> Schwarcz, 'Ring-Fencing' (n 208)10.

<sup>223</sup> Tariq Zafar Rasheed and Bas Zebregs, 'Can a house divided between itself stand? Segregation in derivatives clearing' (2012) 5 JIBFL 293.

<sup>224</sup> Schwarcz, 'Ring-Fencing' (n 208)11.



impact of systemic financial crisis originated in specific activities. The new UK ring-fencing regime for retail banking is an example of this approach.

The most recent initiative concerning the implementation of ring-fencing rules in the UK regime seeks to ring-fence banks by legally separating some of their risky assets from retail banking operations. The Prudential Regulation Authority (PRA)<sup>225</sup> is in charge of developing the policy to implement the ring-fencing of core UK financial services and activities<sup>226</sup>. The adoption of ring-fencing in the UK was recommended by the Independent Commission on Banking (ICB)<sup>227</sup> in 2011, as a measure to improve financial stability. The purpose of ring-fencing is to isolate those banking activities where continuous provision of service is central to the economy and to a bank's customers, in order to ensure the continuity of services even in the event of the bank's failure without government solvency support<sup>228</sup>. Hence, the reform of the FSA 2013 added one measure to promote the safety and soundness of firms by reducing the effect that failure of firms might have in the stability of the UK financial system<sup>229</sup>.

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<sup>225</sup> Under the FSMA 2000 reform of Financial Services Act 2013 (Banking Reform); The FCA is also an 'appropriate regulator' under the Act with responsibility for creating rules in relation to RFBs which are not PRA-authorised. It is not presently envisaged that there will be any RFBs, which are not PRA-authorised at the time ring-fencing becomes operational. Bank of England - Prudential Regulation Authority, 'The implementation of ring-fencing: consultation on legal structure, governance and the continuity of services and facilities' (Consultation Paper CP19/14, October 2014).

<sup>226</sup> More detail on the definition of core activities and Ring-Fenced Banks (RFBs), and the activities which RFBs can and cannot undertake, is set out in two pieces of secondary legislation made by HM Treasury in 2014. *The Ring-fenced Bodies and Core Activities Order 2014*.

<sup>227</sup> Independent Commission on Banking, 'Final Report' (September 2011) <http://webarchive.nationalarchives.gov.uk/20131003105424/https://hmt-sanctions.s3.amazonaws.com/ICB%20final%20report/ICB%2520Final%2520Report%5B1%5D.pdf> accessed 31<sup>st</sup> January 2016; This formed the basis of draft legislation which was reviewed by the Parliamentary Commission on Banking Standards (PCBS). The Government's response to the PCBS, and its impact assessment, were published in February 2013. See HM Treasury/Department for Business, Innovation and Skills, 'Banking reform: a new structure for stability and growth' (February 2013) [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/228995/8545.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228995/8545.pdf) accessed 31<sup>st</sup> January 2016.

<sup>228</sup> Independent Commission on Banking, 'Final Report' (September 2011).

<sup>229</sup> Bank of England- Prudential Regulation Authority, 'The implementation of ring-fencing: consultation on legal structure, governance and the continuity of services and facilities' (Consultation Paper CP19/14, October 2014) <http://www.bankofengland.co.uk/pr/Documents/publications/cp/2014/cp1914.pdf> accessed 31<sup>st</sup> January 2016.

The PRA's policy to implement ring-fencing, from January 2019, considers the legal structure arrangements of banking groups subject to ring-fencing<sup>230</sup>, the government arrangements of ring-fenced institutions<sup>231</sup>, and the arrangements to ensure the continuity of services<sup>232</sup> to ring-fenced institutions<sup>233</sup>. As proposed by the PRA, ring-fencing is implemented to contribute to recovery and resolution scenarios. This is because ring-fencing is used with regards to the resilience of the Ring-fenced Bank (RFB) by seeking to ensure that the business of an RFB is restricted, and as such it has a degree of protection from shocks originating in other parts of the financial system. Ring-fencing also facilitates orderly resolutions when an RFB fails and supports the continuous provision of services<sup>234</sup>. Along with the PRA's policy, the Financial Policy Committee (FPC) is required to issue a framework for a systemic risk buffer (SRB) for ring-fenced banks and large building societies<sup>235</sup>.

The foregoing brief explanation of the ring-fencing regime for the retail banking sector is included in this section in order to illustrate the approach taken by UK regulators. For CCPs, a ring-fencing regime would have to be adapted and designed according to the risks CCPs' failure may pose to the financial stability. Duffie explains that one feature that distinguishes CCPs from other SIFIs, including banks, is that the balance sheet of a CCP is different from those

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<sup>230</sup> 'RFBs should not own entities, which conduct excluded or prohibited activities as this would expose the RFB to risks unrelated to the provision of core services. It also proposes that RFBs are not owned by such firms to ensure the RFB is able to make decisions independently' *ibid*.

<sup>231</sup> 'Rules in the areas of governance, risk management, internal audit, remuneration and human resources policy. Such functions underpin how RFBs make decisions and devise strategy which is critical, in particular, in enabling an RFB to take decisions independently of other group members' *ibid*.

<sup>232</sup> 'Rules governing how RFBs can receive services and facilities from other intragroup entities or third parties outside their group. These are intended to mitigate risks to the ability of the RFB to perform its core services arising from the acts, omissions, or the failure of other group entities' *ibid*.

<sup>233</sup> *ibid*.

<sup>234</sup> *ibid*.

<sup>235</sup> Bank of England, 'The framework of capital requirements for UK banks' (Bank of England, Financial Policy Committee, December 2015) <http://www.bankofengland.co.uk/publications/Documents/fsr/2015/fsrsupp.pdf> accessed 31<sup>st</sup> January 2016; See Bank of England, 'The Financial Policy Committee's framework for the systemic risk buffer A Consultation Paper' (January 2016) [http://www.bankofengland.co.uk/financialstability/Documents/fpc/srbf\\_cp.pdf](http://www.bankofengland.co.uk/financialstability/Documents/fpc/srbf_cp.pdf) accessed 31<sup>st</sup> January 2016.

of other SIFIs<sup>236</sup>. A CCP's balance does not reflect assets and liabilities. Instead, it represents a nexus of contracts that allows clearing members to net and mutualise their credit risk. As the daily payment obligations of a CCP sum become zero, CCPs have small amounts of equity and conventional debt and a large potential of clearing obligations<sup>237</sup>. Therefore, the range of risks posed by the potential failure of a CCP is different from those of other SIFIs. The main risks triggered by CCPs' failure are the contagion of default to non-defaulted clearing members, fire sales of collateral or derivatives contracts, exacerbating market volatility and loss of continuity of clearing services. Thus, the decision of adopting ring-fencing rules for CCPs should consider the mentioned risks and how to better manage them.

#### 4.3.3.4.1.2 Functions of ring-fencing at a market level

Ring-fencing can contribute to solving market failures<sup>238</sup>. In particular, this research refers to information failure. The issue regarding the asymmetry of information is a common concern in financial markets, especially in markets led by complexity and innovation, as the OTCDM. The level of complexity of markets and transactions undermines disclosure<sup>239</sup>. It is not uncommon that market participants cannot fully understand the risks of their transactions and still decide to invest<sup>240</sup>. But even complete disclosure is not always sufficient to mitigate information failures that might cause systemic risk<sup>241</sup>. This is because when market participants understand the risks involved in their transactions and

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<sup>236</sup> Duffie, 'Resolution of Failing Central Counterparties' in Scott, Jackson & Taylor (eds), *Making Failure Feasible: How Bankruptcy Reform Can End 'Too Big to Fail'* (n 216) 88.

<sup>237</sup> *ibid.*

<sup>238</sup> Schwarcz, 'Ring-Fencing' (n 208).

<sup>239</sup> Steven L. Schwarcz, 'Regulating Complexity in Financial Markets' (2009/2010) 87 Wash. U. L. Rev. 211.

<sup>240</sup> John D. Finnerty & Kishlaya Pathak, 'A Review of Recent Derivatives Litigation' (2011) 16 Fordham J. Corp. & Fin., 73-74 (observing that court records reveal investors' misunderstandings about the nature of derivative financial instruments).

<sup>241</sup> Steven L. Schwarcz, 'Systemic Risk and the Financial Crisis: Protecting the Financial System as a 'System'' (Macroprudential Regulation, 12 February 2014).

[https://www.law.berkeley.edu/files/bclbe/Schwarcz\\_Paper.pdf](https://www.law.berkeley.edu/files/bclbe/Schwarcz_Paper.pdf) accessed 30<sup>th</sup> January 2016; *See* Steven L. Schwarcz, 'Controlling Financial Chaos: The Power and Limits of Law' (2012) 3 Wis. L. Rev. 815; Steven L. Schwarcz, 'Regulating Shadows: Financial Regulation and Responsibility Failure' (2013) 70 Wash. & Lee L. Rev. 1781.

products, they tend to protect themselves but not the system as a whole<sup>242</sup>. Moreover, complexity also affects regulators, because it makes it difficult for them to understand the evolution of the market they regulate. The lack of specialised knowledge and expertise diminishes the effective design and implementation of financial regulation.

The foregoing considerations concerning information failure are relevant to understanding the dynamics of the OTCDM. Complexity and innovation are central to the role of CCPs and the services they provide to CMs and CMs' clients. Hence, CCPs have specialised knowledge and expertise regarding the clearing services and the products thereof. However, the extent to which CMs and regulators have access and fully understand this information is likely to be limited. Similarly, information failure also affects the relationship between CCPs and CMs. CMs and clients know their positions and exposures and the quality of the assets serving as collateral to their transactions. Indeed, CMs are required to report the information to CCPs, which in turn use that information to comply with segregation and portability obligations. However, as was explained earlier, CCPs have a purely administrative function to keep the register of positions, assets and value related to collateral. In carrying out this function, CCPs rely completely on the information CMs give relating to their clients' types of assets and value related to collateral. As a result, it is possible that the information CMs report is not accurate and, as such, affects the efficient functioning of the CCP, particularly when complying with portability requirements.

Schwarcz argues that ring-fencing contributes to solving information failure by simplifying the investments that certain financial firms can make<sup>243</sup>. However, this argument would be debatable in the area of the OTCDM and CCPs. This is because the role of regulators is to control the risk originating in the market. In doing so, they impose certain prudential requirements that market participants and transactions must meet. For instance, the introduction of mandatory clearing for a large portion of OTCDM is ruled in order to enhance

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<sup>242</sup> Steven L. Schwarcz, 'Systemic Risk and the Financial Crisis: Protecting the Financial System as a 'System'' (n 241).

<sup>243</sup> Schwarcz, 'Ring-Fencing' (n 208).

the counterparty credit risk, as well as to increase the stability of the market. The rationale is to ensure the safety and soundness of CCPs, which in turn improves their resilience. Therefore, the regime of CCPs in the OTCDM is not protecting exclusively the CCPs as individual institutions, but also aims at strengthening the OTCDM as a whole and thereby controlling systemic risk.

In this sense, although the use of CCPs enhances the standardisation of products and processes, and this could be regarded as a simplification of the derivatives trading, the introduction of mandatory central clearing is also introducing complexity to the market. Therefore, it is not clear how the introduction of ring-fencing rules could effectively help to solve an information failure that - in the form of complexity - the regime is introducing itself to the OTCDM. Thus, the key element for ring-fencing rules to achieve this objective is to clearly identify the events of information failure affecting CCPs and the provision of clearing services, and to propose coherent solutions. These solutions should have regard to the sources of complexity in the market, namely: market practices and those manufactured by the regime.

The second function of ring-fencing at market-level is to protect against systemic risk. As CCPs are Systemically Important Financial Institutions (SIFIs), the role of ring-fencing in this area will be explored in the next part.

#### **4.3.3.4.2 Benefits and limits tied to the adoption of ring-fencing for CCPs-SIFIs**

Attending to the well-known systemic implications of CCPs failure<sup>244</sup>, the discussion concerning the use of ring-fencing for CCPs is closely connected to the issues of how to manage the ‘too-big-to-fail’ (TBTF) problem<sup>245</sup>. Before

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<sup>244</sup> Andrew Cornford, ‘The Failure of Cross-Border Financial Firms: New Thinking in the Aftermath of the Financial Crisis’ (Observatoire de la Finance, Geneva, July 2010) [http://fsbwatch.org/pdf/failure\\_of\\_crossborder\\_financial\\_firms\\_cornford.pdf](http://fsbwatch.org/pdf/failure_of_crossborder_financial_firms_cornford.pdf) accessed 31<sup>st</sup> January 2016.

<sup>245</sup> The FSB Report of 2010 includes the preliminary response to address Too-Big-To-Fail (TBTF) problems associated with SIFIs. FSB, ‘Reducing the moral hazard posed by systemically important financial institutions’ (FSB, Interim report to G20 Leaders, 18<sup>th</sup> June 2010).

the Global Financial Crisis, the TBTF doctrine<sup>246</sup> was mostly associated with the size of the institution. However, the events of Bear Stearns and Lehman Brothers broadened the theory to consider that some institutions are too interconnected to fail<sup>247</sup>. CCPs in the OTCDM, as discussed earlier, occupy a prominent and systemic position as they concentrate and manage the risk of transactions that were traditionally traded on a bilateral basis. The enhancement in the use of central clearing reflects the high level of interconnectedness between CCPs and OTCDM participants. CCPs are linked directly with CMs and indirectly with CMs' clients. These interconnections become channels of communication and transmission of default. Hence, the financial difficulties of CCPs might rapidly spill over to a large number of other institutions or to the entire financial system.

The understanding of the systemic importance of CCPs would be incomplete without considering that CCPs, as SIFIs, are usually cross-border financial firms. In the area of insolvency of cross-border financial firms, the fundamental debate is between the adoption of the universal approach and the territorial approach<sup>248</sup>. The adoption of 'universal' or cross-border policies might sometimes be better suited to manage SIFIs' insolvency than territorial policies, such as ring-fencing.

On the one hand, the defenders of the universal approach assert that one of the main limits of ring-fencing is that the resulting restrictions on capital flows might exacerbate problems elsewhere, and they might lead to inefficient capital and liquidity management<sup>249</sup>. Moreover, universal approach proponents argue that ring-fencing measures (e.g. prohibition of intra-group transfers) increase financial stress, and impede other national authorities' crisis management efforts<sup>250</sup>. When national regulators seize domestic assets for the benefit of

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<sup>246</sup> The origin of the term can be traced to the open bank assistance offered to Continental Illinois in 1984.

<sup>247</sup> Thomas F. Huertas and Rosa Lastra, 'The Perimeter Issue: To what Extent should *Lex Specialis* be extended to Systemically Institutions? An exit strategy from too big to fail' in Rosa Lastra (ed), *Cross-Border Bank Insolvency* (OUP, 2011) 273.

<sup>248</sup> Jonathan Edwards, 'A Model Law Framework for the Resolution of G-SIFIs' (2012) 7 CMLJ 2, 122.

<sup>249</sup> Basel Committee, Cross-Border Bank Resolution Group (CBRG) 2010 Section III.

<sup>250</sup> H. S. Scott, 'Supervision of International Banking Post-BCCI' (1992) 8 Ga St U L Rev 487, 504.

national creditors,<sup>251</sup> orderly resolution is inefficient<sup>252</sup> and it affects the rights of creditors of other jurisdictions. Ring-fencing assets might increase the possibility of group-wide failure, because it critically affects the continuity of certain functions.

On the other hand, proponents<sup>253</sup> of a territorial approach argue that ring-fencing allows national authorities to apply their own insolvency laws to the entities, operations, and assets of the firms in their jurisdiction. The main benefit of ring-fencing is that it encourages early intervention by national authorities when it is necessary, even if the insolvent firm is a cross-border entity<sup>254</sup>.

The foregoing considerations regarding the benefits and limits tied to the adoption of ring-fencing in the context of SIFIs and cross-border entities (e.g. CCPs) illustrate that a regime for CCPs should be designed to efficiently protect against their failure and against systemic risk. It reveals the need to structure ring-fencing rules suitable to be combined with cross-border measures designed to enhance resilience<sup>255</sup> of the OTCDM. Moreover, a ring-fencing regime should consider the twin realities of cross-border arbitrage<sup>256</sup> deeply embedded in the interconnections of CCP with other financial entities. Similarly, as the cost of using ring-fencing might be duplicative,<sup>257</sup> because there are other solutions to systemic risk (e.g. bail-outs), regulators should decide whether the regime would bring additional benefits to the management of CCPs failure. For instance, the inclusion of ring-fencing rules in the Dodd-Frank Act is justified as a measure that could help to mitigate the too big to fail problem.

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<sup>251</sup> Bank of Credit and Commerce International (BCCI).

<sup>252</sup> Hons SL Bufford, *Global Venue Controls Are Coming: A Replay to Prof. LoPucki* (2005) 79 *Am Bank LJ* 105, 136.

<sup>253</sup> LM LoPucki, 'The Case for Cooperative Territoriality in International Bankruptcy' (2000) 98 *Mich L Rev* 2216.

<sup>254</sup> Some members of the CBRG share this view. Basel Committee, *Cross-Border Bank Resolution Group (CBRG) 2010 Section III*.

<sup>255</sup> Basel Committee, *Cross-Border Bank Resolution Group (CBRG) 2010 Section III*.

<sup>256</sup> James L Bromley and Tim Phillips, 'International Lessons from Lehman's Failure: A cross-border no man's Land' in in Rosa Lastra (ed), *Cross-Border Bank Insolvency* (n 247).

<sup>257</sup> Schwarcz, 'Ring-Fencing' (n 208).

#### 4.4 Conclusion

The fractures of the UK regime of CCPs in the OTCDM discussed in this chapter illustrate how the use of a risk-based approach to regulation by UK regulators is creating ‘manufactured risks’. Regarding the insufficient legal framework underpinning CCPs’ operations, the ‘manufactured risks’ stem from the lack of protection of CMs and CMs’ clients’ rights from the imposition of unfair contract terms, as well as the lack of clarity related to the standard of diligence that CCPs should observe when performing their contractual obligations.

Along with the creation of ‘manufactured risks’, the fracture of the insufficient legal framework underpinning CCPs’ operations also reveals the absence of an organisational culture in implementing risk-based regulation. This is because it is not clear the role of regulators – Bank of England or FCA – in implementing rules for CCPs related to the management of CMs assets and positions.

Regarding the fracture of the insufficient legal framework underpinning CCPs’ operations, this research argues that the robustness of a CCP is not limited to prudential matters. It should also pursue the robustness of its clearing members. Hence, the central argument put forward is that making CCPs safe and sound does not justify the imposition of excessive restrictions on the CMs’ contractual rights and indirectly on CMs’ clients’ rights. One area of particular concern in the relationship between CCPs and CMs is the limitation of CCPs’ liability allowed by Section 291 of FSMA. This regime prevents CMs from exercising their contractual rights when the CCPs are acting negligently. CCPs can only be held responsible when they act in bad faith, fraudulently or in gross negligence. There is no standard of diligence applicable to CCPs when they perform contractual obligations.

In order to illustrate how problematic the current limitation of CCPs’ liability might be in practice, this chapter highlighted the rules of CCPs’ rulebooks operating in the UK, and the related issues. These include the CCPs’



management of CMs assets, and the issues affecting the effectiveness of segregation requirement as was conceived in EMIR. In particular, this research argues that UK regulators should design a regime that goes beyond the ‘legal segregation’ and ensure the actual segregation of collateral. The development of additional rules would also impose a duty on CCPs to verify the accuracy of the information provided by CMs concerning their clients’ positions, types of assets and value related to collateral. Moreover, CCPs’ rulebooks almost exclusively rule the CCPs ‘obligations related to CMs’ positions. In this area, the role of CCPs includes: recording positions and margin, management and liquidation of collateral, portability, management of mutualisation of risks and, in some types of accounts, the management of CM’s clients’ default. The content of these rules and the high level of discretion granted to CCPs when performing their obligations prompt potential sources of litigation. Therefore, the argument defended in this chapter calls for the recognition of a duty of care in the contractual relationship between CCPs and CMs. It emphasises the need to review the statutory and contractual limits to the liability of CCPs. The recognition of the duty of care would contribute to rebalance the relationship between CCPs and their members, and thereby strengthen the protection of CMs’ rights.

The discussion concerning the inexistence of a Special Resolution Regime for CCPs reveals another fracture of the UK regime of CCPs in the OTCDM. It highlighted that, during the first years of the regime, the Bank of England has been focused on strengthening the loss allocation and recoverability rules. However, this approach is incomplete. Strengthening the resilience of CCPs implies a comprehensive regulatory framework that allows supervisors to conduct CCP’s insolvency proceedings in an orderly manner and, more importantly, ensures the continuity of services. Both recovery and resolvability regimes are tools for the effective management of CMs’ default, and seek to guarantee that CCPs are sufficiently solvent to contain losses and liquidity shortfalls. Moreover, recovery and resolution rules aim to ensure that the core functions of CCPs are maintained in times of financial distress and crisis.

This research calls UK regulators to design a resolution regime that attends to the particularities of CCPs. The systemic importance of CCPs and the impact of their failure is not merely a theoretical discussion. Although it is a very rare scenario, CCPs can actually fail and regulators need to have rules and enforcement powers to resolve CCPs avoiding the disturbance of clearing services. As CCPs are the centre of multiple contracts that net positions and mutualise credit risk, their resolution regime should minimize the distress costs of all market participants, CMs, third parties and taxpayers that could suffer spill-over costs.

Furthermore, the design of a special resolution regime for CCPs should address questions related to the efficient allocation of losses, how to mitigate fire-sales and how to ensure the continuity of services. The international regulatory trend seems to be moving towards the design of a credible recapitalization strategy that seeks to favour recapitalization over liquidation. Despite the critiques to this method, the rationale is to create a fund that will operate only when all the recovery tools have been exhausted and the CCP is not viable any more. It has also been advised to develop stress tests as a complement to the CCPs' internal stress tests. Along with this recommendation, it has been proposed to use techniques to crystallise losses to counterparties and to contractually restructure their clearing payment obligations to CMs. These contractual restructuring measures include Variation Margin Gains Haircutting (VMGH) and tear-ups.

Similarly, the resolution authority should be bestowed with powers that facilitate early intervention. In this matter, the advances in the UK are in the Code of Practice that explains how the Banking Act 2009 applies to CCPs. In particular, it delimits the circumstances in which the Bank of England would exercise its stabilisation powers. The stabilisation powers include the power to transfer some or all the business of a CCP to a 'bridge CCP' that is owned or controlled by the Bank, and the power to transfer the ownership of the CCP to any other person. This research recognises that ruling the early intervention powers of the Bank – as the resolution authority of CCPs - is one step forward. However, there are other aspects that are still to be developed. The CCPs'

insolvency regime should be consistent with international efforts to deal with cross-border issues (e.g. the work of the *fmiCBCM* in cooperation with IOSCO). Moreover, this research emphasised that, in the process of regulating the insolvency of CCPs, it is advisable that UK regulators consider the risks that CCPs face in the event of CMs' insolvency, and how it might threaten the stability of the CCP.

The study of this fracture highlighted some of the shortcomings that a special resolution regime of CCPs might face in practice. Regulators need to be especially careful when adopting rules that limit the possibility for CMs and clients to enforce their rights in front of a defaulting CCP. (e.g. the right to terminate contracts in the case of CCP's insolvency suggested by the FSB *Key Attributes*, or termination rights in derivatives contracts in the FCAD). Moreover, the design of a Special Resolution Regime for CCPs will be the opportunity to clarify whether CCPs could be bailed out. This is because, although one of the fundamental principles that regulators have made clear from the beginning is that they do not allow the use of public sources to bail out CCPs, there is still debate if the principle would remain under exceptional circumstances.

Furthermore, there is the issue related to the role CMs play as the ultimate underwriters of the CCP default risk. This research argued that, if the tendency of the coming regulation is to impose further funding requirements onto CMs, as a measure to contribute to the CCPs' recovery, it will be necessary that regulators intervene to 'rebalance' the relationship between CMs and CCPs. This could be achieved by means of designing more rigorous stress tests and enhancing the disclosure of CCPs' management actions *ex ante*, so CMs are sufficiently informed about the functioning of the CCP.

Finally, the discussion concerning the Special Resolution Regime for CCPs considered whether ring-fencing could be used as a regulatory solution to manage CCPs' financial distress. If applicable by UK authorities, the ring-fencing of CCPs should be designed as a complementary tool to strengthen the protection against their failure and against the concretion of systemic risk. However, the challenge is how to make ring-fencing rules suitable to be

applicable along with cross border measures designed to enhance the resilience of the OTCDM.

## **Chapter 5**

### **Fracture: Failure to Rule Innovation Risk**

#### **5.1 Introduction**

The last fracture of the UK regime of CCPs in the OTCDM is that it fails to rule innovation risk. The focus of the Bank of England (BoE) is on the management of credit, liquidity and operational risks. Although this tripartite interest of the regime tackles the primary concerns of the functioning and stability of CCPs and deals with one of the fundamental areas of the CCPs regulation, there are other types of ‘manufactured risks’ that are not being considered. This chapter argues that the current UK regime of CCPs is fractured because it disregards one of the most traditional characteristics of the OTCDM<sup>1</sup> - Innovation Risk<sup>2</sup>. Since the origins of the OTCDM, innovation has boosted the continuity, expansion, and growth of the market. For the purpose of this research, ‘innovation risk’ covers the alternative innovative mechanisms<sup>3</sup> that CCPs and their members might use to avoid regulatory burdens, while at the same time complying with the new regulatory requirements, this is ‘creative compliance’. Therefore, if the objective of the BoE is to regulate CCPs aiming at ensuring the safety and soundness of the OTCDM, the regime of CCPs should include the risk

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<sup>1</sup> ‘The evolution of risk control structures in derivative markets provides useful insights into how market mechanisms deal with risk through contractual and organizational innovation’. Randal Kroszner, ‘Can the Financial Markets Privately Regulate Risk? The Development of Derivatives

<sup>2</sup> Adam Waldam, ‘OTC Derivatives &(and) Systemic Risk: Innovative Finance or the Dance into the Abyss?’ (1993-1994) 43 Am. U. L. Rev. 1023.

<sup>3</sup> Defining Financial Innovation – Lerner and Tufano: “Financial innovation is the act of creating and then popularizing new financial instruments, as well as new financial technologies, institutions and markets. The innovations are sometimes divided into product or process variants, with product innovations exemplified by new derivative contracts, new corporate securities or new forms of pooled investment products, and process improvements typified by new means of distributing securities, processing transactions or pricing transactions. In practice, even this innocuous differentiation is not clear, as process and product innovations are often linked. Innovation includes the acts of invention and diffusion, although in point of fact these two are related as most financial innovations are evolutionary adaptations of prior products.” Lerner, J. & Tufano, P. (2011) The Consequences of Financial Innovation: A Counterfactual Research Agenda. Annual Review of Financial Economics, 3, in World Economic Forum: Rethinking Financial Innovation: Reducing Negative Outcomes While Retaining The Benefits. (2012) [http://www3.weforum.org/docs/WEF\\_FS\\_RethinkingFinancialInnovation\\_Report\\_2012.pdf](http://www3.weforum.org/docs/WEF_FS_RethinkingFinancialInnovation_Report_2012.pdf) accessed 5<sup>th</sup> October 2015.

that innovation<sup>4</sup> represents to the achieving of regulator's objectives<sup>5</sup>. Moreover, the regime should consider the role of CCPs as 'co-regulators' to the extent that they impose market discipline.

This chapter starts with a brief explanation of the hypothesis where innovation risk might be crystallised. It then presents an overview of the governance rules of EMIR and the role that the UK Senior Managers and Certification Regime (SM&CR) could have if applied to individuals who work in CCPs. It discusses how the demutualised structure of CCPs operating in the UK puts conflict of interests' issues in the forefront. In particular, it refers to the convergent interests of CCPs' owners, Clearing Members (CMs) and the public interests. As the BoE's approach is yet to be developed, the section is devoted to highlight the need for CCPs' governance rules and how those rules might contribute to partially solve some of the innovation risk- related concerns. Finally, the last part explains how innovation is likely to lead to some of the unintended consequences of the CCP's regime. It refers to the potential dangers coming from the innovative financial techniques OTCDM participants will use to meet the high quality collateral requirements of CCPs. It also explores how the 'innovative' use of portfolio compression diminishes the effectiveness of CCPs as managers of counterparty credit risk in the OTCDM, and its role in front of systemic risk.

## **5.2 Innovation to avoid central clearing**

Innovation can take different forms, one of them is the use of derivatives transactions that dealers want to keep in (the) bilateral trading to avoid central clearing. Major dealers will seek to protect their profitability by participating in the higher margin bilateral trading. To that end, they are likely to engage in faux

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<sup>4</sup> 'Financial innovation is a continuous, dynamic process that entails the creation and subsequent popularization of new financial instruments'. Panagiotis Delimatsis, 'Transparent Financial Innovation in a Post-Crisis Environment' (2012) 16 J Int Economic Law 1,159.

<sup>5</sup> 'In the last few decades, rulemaking has been considered to be too slow to keep up with innovation in the sphere of financial instruments (for instance, in the case of derivatives) and has been relegated to the same level as principles, with the inevitable confusion of their respective roles' Rosa Lastra and Andrea Miglionico, 'The House of Lords report on the post-crisis EU regulatory framework: where does the UK stand? (2015) 5 JIBFL 303, 304C.

customization of clearing-eligible products and to influence the governance of CCPs. Griffith<sup>6</sup>, when studying the issues related to the governance of CCPs, emphasises the interest that major dealers might have on keep clearing-eligible derivatives off the CCPs.

This research argues that the regulation of the governance of CCPs could help to overcome one part of the fracture related to ‘innovation risk’. It is not possible to control the creativity of market participants when it comes to bespoke transactions; it is not possible for regulators to anticipate the forms derivatives transactions might take. However, what is achievable is to control the power that major derivative dealers might have over the governance of CCPs. This is to control the self-interest that major dealers might exert to ‘escape’ the clearing requirement by convincing the CCP that certain clearing-eligible products ‘disguised’ as bespoke instruments, should not be cleared through the CCP. The debate is closely related to the line - continuously stepped by regulators - between the imposition of clearing eligibility requirements that constraint the freedom of CCPs to decide what products to clear and the consequences it has in terms of liquidity, and to open the discretion for CCPs to decide as it is most convenient to them. The scenario that allows the CCP to use its discretion is vulnerable to the self-interest of major dealers, and this is the point that should be urgently considered by regulators in the design and implementation of a CCPs’ governance regime.

The position adopted in (the) European regulation is restrictive<sup>7</sup>. EMIR and complementary legislation clearly instruct CCPs about the requirements that derivatives transactions shall meet in order to be cleared<sup>8</sup>. ESMA develops the

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<sup>6</sup> Sean J. Griffith, ‘Governing Systemic Risk: Towards a Governance Structure for Derivatives Clearinghouses’, (2012) 61 Emory L.J. 1153, 1195 <http://law.emory.edu/elj/documents/volumes/61/5/articles/griffith.pdf> accessed 4<sup>th</sup> November 2015.

<sup>7</sup> Art. 4 (1) EMIR requires certain OTC derivatives as determined by ESMA to be subject to mandatory clearing.

<sup>8</sup> Art. 5 EMIR establishes the Review Process for Mandatory Clearing. It includes two process, implemented by ESMA, for assessing the eligibility of a class of OTC derivatives transactions for mandatory clearing: ‘Bottom-up’ and ‘top-down’ procedures.

scope of classes of clearing eligible transactions<sup>9</sup> through Regulatory Technical Standards (RTS)<sup>10</sup>. Therefore, any change to the scope must go through the process of an amendment of the RTS. Similarly, EMIR lacks a mechanism to temporarily suspend the clearing obligation. The process to suspend or revoke a clearing obligation could take months, since it would require a change in EU legislation. Recognising the lack of flexibility of the current regime in the latest review of EMIR<sup>11</sup>, ESMA advised the European Commission<sup>12</sup> to ‘streamline the process for determining clearing obligations and to introduce tools allowing the suspension of the clearing obligation when certain conditions arise’<sup>13</sup>.

In the response to the latest Consultation of EMIR Review, the UK<sup>14</sup> and the ECB<sup>15</sup> advised the adoption of a quicker mechanism in attention to the

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<sup>9</sup> EMIR does not include exceptions from clearing mandate for particular types of OTC derivatives. However, it includes certain relaxations for FX Contracts and Covered Bonds in Recital 19 and 24 EMIR, respectively.

<sup>10</sup> On 6 August 2015, the European Commission adopted a delegated regulation that makes it mandatory for certain over-the-counter (OTC) **interest rate derivative contracts** to be cleared through central counterparties, this delegated regulation entered into force on 21 December 2015; On 1 March 2016, the European Commission adopted a delegated regulation that makes it mandatory for certain over-the-counter (OTC) **credit default derivative contracts** to be cleared through central counterparties. This Regulation entered into force on the twentieth day following that of its publication in the Official Journal of the European Union. Afterwards, the clearing obligation will progressively take effect according to the categories of OTC derivatives, as classified in the Annex to the delegated regulation.

<sup>11</sup> EMIR Review Report no.4. ESMA input as part of the Commission consultation on the EMIR Review 13 August 2015 | [ESMA/2015/1254 4] Improvements to the clearing obligation procedure. [https://www.esma.europa.eu/system/files/esma-2015-1254\\_-\\_emir\\_review\\_report\\_no.4\\_on\\_other\\_issues.pdf](https://www.esma.europa.eu/system/files/esma-2015-1254_-_emir_review_report_no.4_on_other_issues.pdf) accessed 4<sup>th</sup> November 2015.

<sup>12</sup> European Commission Directorate General Financial Stability, Financial Services and Capital Markets Union. Public Consultation of Regulation [EU NO 648/2012] on OTC Derivatives, Central Counterparties and Trade Repositories (21st May - 13th August 2015) [http://ec.europa.eu/finance/consultations/2015/emir-revision/docs/consultation-document\\_en.pdf](http://ec.europa.eu/finance/consultations/2015/emir-revision/docs/consultation-document_en.pdf) accessed 4<sup>th</sup> November 2015.

<sup>13</sup> ESMA, ‘ESMA recommends changes to EMIR framework’ [ESMA/2015/1260] (Press Release 13 August 2015) [http://www.esma.europa.eu/system/files/2015-1260\\_esma\\_recommends\\_changes\\_to\\_emir\\_framework.pdf](http://www.esma.europa.eu/system/files/2015-1260_esma_recommends_changes_to_emir_framework.pdf) accessed 4<sup>th</sup> November 2015.

<sup>14</sup> It was discussed in the interview at the BoE. Interview Mr. Paul Brione Head of Central Counterparty Supervision, Bank of England, London, 25<sup>th</sup> September 2015.

<sup>15</sup> ‘Regarding the **clearing obligation**, the ECB wishes to reiterate and support the points made by the European Systemic Risk Board in its own response to the public consultation, namely that a swift process to remove or suspend the clearing obligation should be established when the relevant market situation so requires (e.g. certain instruments become illiquid; a CCP is under recovery or resolution procedures), and that systemic risk issues should be more explicitly taken into account when identifying the categories of products suitable for mandatory clearing.’ ECB response to the European Commission’s consultation on the review of the European Market Infrastructure Regulation (EMIR). [ECB-02] September 2015



difficulties that CCPs might face when being compelled to clear less liquid products. This research argues that the proposition of the BoE in this matter is helpful and seeks to boost the efficient functioning of clearing services, but it needs to be accompanied by strong governance rules for CCPs.

The foregoing description of the rules concerning eligibility of central clearing and the discussion thereof lead this research to argue the relevance that the governance rules of CCPs might have. This is that when the regime includes a prescriptive list of clearing eligible derivatives, as EMIR does, the concern is that this might adversely affect the liquidity of the CCP, which would be obliged to clear less liquid transactions. However, if the prescriptive list approach is reformed to allow CCPs to decide when to except the clearing eligibility for certain products. The downside of this discretionary approach is that it might open the opportunity for major dealers to influence the CCP to not clear certain type of derivatives that, in principle, would be subject to the clearing obligation. It is in this point where this research argues that in order to control the self-interest of major dealers, regulators might use governance regime.

As was discussed in chapter 3, the BoE has not yet developed the governance principles of CCPs, but it is one of the regulatory priorities according to the second report of May 2015<sup>16</sup>. In line with these expected regulatory developments in the UK, this research highlights some of the most prominent issues that could be solved with an effective regime of governance of CCPs. The current regime is comprised by the governance rules in EMIR and the self-regulatory codes adopted by CCPs.

The next sections explore the governance rules in EMIR and introduce the individual accountability regime of the UK financial services.

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[http://www.ecb.europa.eu/pub/pdf/other/ecb\\_reply\\_to\\_commission\\_public\\_consultation\\_emiren.pdf?d2d149511414150aa03972c156c5e9d9](http://www.ecb.europa.eu/pub/pdf/other/ecb_reply_to_commission_public_consultation_emiren.pdf?d2d149511414150aa03972c156c5e9d9) accessed 4<sup>th</sup> November 2015.

<sup>16</sup> The Bank of England's supervision of Financial Market Infrastructures. Annual Report. March 2015 (Hereinafter BoE's supervision of FMIs 2<sup>nd</sup> Annual Report 2015).

## **5.2.1 Governance Rules**

### **5.2.1.1 EMIR**

EMIR seeks to serve as a framework for the safe and sound functioning of the CCPs as the new intermediaries in the OTCDM. That is why the internal organisation and governance of CCPs occupies a large part of EMIR. Title IV rules, among other aspects, the organisational requirements of CCPs.

Regarding the organisational requirements, the general provision establishes the obligation for the CCPs to have robust governance arrangements, including a ‘clear organisational structure with well-defined, transparent and consistent lines of responsibility, effective processes to identify, manage, monitor and report the risks to which it is or might be exposed, and adequate internal control mechanisms, including sound administrative and accounting procedures’<sup>17</sup>. CCPs’ internal control structure facilitates internal and external monitoring by providing access to relevant data. Such access to information seeks to effectively enhance the transparency of CCPs’ operation; consequently, this enhances the ability of regulators to access accurate information, which in turn benefits the process of supervision.

As might be anticipated, this provision reflects one of the characteristics of the risk-based approach to regulation and supervision, which is the reliance on the internal control system and how it contributes to achieving regulators’ objectives. The rationale is that the CCPs’ internal organisation and management is the first tool to achieve the efficient functioning of the CCP, in the pursuance of financial stability. To that end, CCPs adopt policies and procedures to ensure compliance with the relevant regulation.

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<sup>17</sup> Art 26 EMIR.

According to (the) regulatory requirements. CCPs are also compelled ‘to maintain and operate an organisational structure that ensures continuity and orderly functioning in the performance of its services and activities’<sup>18</sup>. The continuity of services in times of financial distress is a concern of regulators from a recovery and resolution perspective, as well as from the governance and internal organisation point of view.

EMIR rules the internal governance of Central Counterparties CCPs. Similar to other financial institutions, senior managers should be sufficiently skilled and experienced ‘so as to ensure the sound and prudent management of the CCP’<sup>19</sup>. The members of the board of a CCP shall have adequate expertise in financial services, risk management and clearing services. These organisational requirements included on the governance of CCPs show another element of the risk-based approach to regulation, which is the fact that the internal system of control and, in general, the internal structure and governance of the regulated firm are established in such a manner that will contribute to the achievement of the regulatory objectives. The rationale is to ensure that the system of internal control works. These are the rules governing the senior management and governance arrangements of the CCP, which should contribute to the safety and soundness of the CCP itself, and thereby help to achieve financial stability.

Moreover, a CCP will establish a Risk Committee, consisting of representatives of its clearing members, independent members of the board and representatives of its clients. This committee shall be completely independent from the management of the CCP. The risk committee advises on several matters, mainly: ‘any arrangements that may impact the risk management of the CCP, such as a significant change in its risk model, the default procedures, the

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<sup>18</sup> Art 26 EMIR.

<sup>19</sup> Art 27 EMIR.

criteria for accepting clearing members, the clearing of new classes of instruments, or the outsourcing of functions’<sup>20</sup>.

It is still unclear whether the UK regime of individual accountability would be automatically applicable to senior managers and employees of CCPs. Hence, the regime applicable, at the time of writing, is contained in EMIR. However, it is worthy to explain the role of individual accountability regimes in the context of governance of CCPs.

#### **5.2.1.2 UK Individual Accountability Regime**

##### **5.2.1.2.1 The context of individual accountability**

The purpose of this section is to emphasise the importance of individual accountability regimes as part of governance rules. To this end, it highlights the role of these regimes in the context of financial regulation, and in particular in risk-based regimes in the area of conduct of business rules and governance.

Along with the elements examined before, a governance regime should also include a system of effective oversight of senior management and employees. This is a regime of individual accountability that ensures individuals are of sufficiently good repute and possess sufficient knowledge, expertise, and skills to perform their functions. This regime adopts standards of conduct as criteria to authorise individuals to perform significantly important functions. These standards also assist the assessment of the actions and behaviour of those individuals. Hence, the regime usually includes the ‘Fit and Proper’ standard, which allows regulators to consider honesty, integrity, reputation, competence and capability, and financial soundness of the individuals performing significant functions within the firm. Moreover, once these individuals have been

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<sup>20</sup> Art 28 EMIR.

authorised, there are some standards of conduct related to the way functions should be performed. The duty to act with integrity, to act with due skill, care and diligence, to observe proper standards of market conduct, to deal with regulators in an open and cooperative way, and to take reasonable steps to ensure that the business of the firm is organised and complies with the relevant requirements and standards of the regulatory system.

The rationale of individual accountability regimes is primarily focused on identifying the responsibilities that each individual has within the firm. The clear determination of such responsibilities assists both regulators and firms in implementing systems of control to ensure that individuals perform their functions following the standards of conduct and that they act in the best interest of the firm and the market. In the event of non-observance, firms and regulators bring into operation a system of control i.e. firm internal disciplinary proceedings, and administrative or criminal sanctions imposed by regulators.

In financial services regulation, the adoption of individual accountability rules is seen as an extension of its reach ‘downwards’ into the level of the firm to impose specific responsibilities on individuals<sup>21</sup>. The importance of adopting rules that link individual responsibility with the due care and skill in the conduct of business, and proper internal organisation, was initially recognised in the UK by the Securities and Futures Authority in 1998<sup>22</sup>. The detailed evolution of individual accountability in UK financial services is beyond the scope of this research. However, it is relevant to emphasise that the standard of ‘fitness and propriety’, guidance on adequate management controls, and standards and rules on how to perform functions in the carrying on of regulated activities, have been common elements to all regimes. They have been included in the Approved Persons Regime (APR) of FSMA 2000 as well as the New Senior Managers and Certification Regime (SM&CR).

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<sup>21</sup> Joanna Gray and Jenny Hamilton, *Implementing Financial Regulation: Theory and Practice* (John Wiley & Sons Ltd, 2006) 55.

<sup>22</sup> SFA Board of notice 473, May 1998. in *ibid*.

As explained earlier (Chapter 1), the adoption of firms' internal control systems is a key component of the risk-based approach to regulation. The aim is to determine that all mechanisms of internal control are adequate and sufficient. Hence, in order to ensure that regulators' decision-making is objective and based on pre-established standards (e.g. 'fitness and propriety'), there should be a continuous review and assessment of the firm's internal controls. In particular, the implementation of individual accountability regimes reflects one of the elements of risk-based regimes. This is the reliance on the firm's internal control as a way of transplanting risk-based supervision at a firm level, which also minimises the regulator's exposure to risk. In this case, the risk is that a breach of standards of conduct affects the public interest.

It is also important to clarify that prudential supervision does not necessarily reduce the likelihood of collapse, fraud or non-compliance of conduct rules and standards, mainly because it is concerned with the stability of firms and markets. This is why the development of individual accountability regimes is an important part of governance regimes. Hence, it is necessary to adopt systems of internal controls other than financial<sup>23</sup>, which are effective on the basis of cooperation between regulators and firms. Achieving effective cooperation requires that firms value the importance of it. Only in that scenario regulators are in the position to deliver their objectives. The firm's internal control comprehends several mechanisms, which will be briefly highlighted in this section, as they are not the core of the discussion. To start, internal control includes rules of corporate governance<sup>24</sup> that for financial firms have a broad scope. It goes beyond the shareholders to include debt holders, insurance policy

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<sup>23</sup> The Hampel Report emphasised that financial controls are only one part of the whole framework of internal-control systems. Committee on Corporate Governance, Report of the Committee on Corporate Governance, London, Gee & Co (1998) (*Hampel Report*).

<sup>24</sup> Corporate Governance contributes to accountability and business growth (*Hampel Report*); 'It has also been considered that Corporate Governance rules the relationship between managers and shareholders, and in that sense it contributes to understanding how companies are directed and controlled' Committee on the Financial Aspects of Corporate Governance, Report of the Committee on the Financial Aspects of Corporate Governance, London Gee & Co (1992) (*Cadbury Report*); 'More recently, the UK Corporate Governance Code focus more on effective leadership and commitment from Directors, it also seeks greater transparency with regard to a company's business model.' Financial Reporting Council, 'The UK Corporate Governance Code' (September 2012) <http://www.slc.co.uk/media/5268/uk-corporate-governance-code-september-2012.pdf> accessed 1<sup>st</sup> March 2016.

holders and other creditors, called debt governance<sup>25</sup>. Moreover, internal auditing<sup>26</sup> is also a key component of internal control systems<sup>27</sup>. Its terms and conditions<sup>28</sup> follow the Institute of Internal Audit International Professional Practices Framework (IPPF), which includes the International Standards for the Professional Practice of Internal Auditing (the IIA Standards)<sup>29</sup>. In the particular case of financial firms, it assists regulators in the process of regulation and supervision<sup>30</sup> because it is performed on the basis of risk analysis, where the internal audit is to identify internal and external risks<sup>31</sup>. Such an identification of risk contributes to the effective design and implementation of risk-based regimes. This is because, as explained earlier (Chapter 1), an effective risk-based regime integrates the multiple perceptions and attitudes towards risks, i.e., the perception of firms and regulators.

#### 5.2.1.2.2 The relevance of adopting an Individual Accountability Regime

The importance of developing a regime of individual accountability for financial firms lies on the implementation of narrower parameters to assess

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<sup>25</sup> Klaus J. Hopt, 'Better Governance of Financial Institutions' (Max Planck Institute for Private Law, ECGI Working Paper Series in Law, Working Paper N°. 207/2013 Hamburg, Germany April 2013) <http://personal.lse.ac.uk/schustee/hopt%20governance.pdf> accessed 27<sup>th</sup> January 2016; The OECD identifies three special factors of corporate governance of banks: systemic risk, high leverage, and dispersed non-experts as claim holders. See OECD, 'Corporate Governance and the Financial Crisis: Key Findings and Main Messages'. (OECD, June 2009) <http://www.oecd.org/corporate/ca/corporategovernanceprinciples/43056196.pdf> accessed 27<sup>th</sup> January 2016.

<sup>26</sup> Under FSMA internal audit is a 'controlled function'.

<sup>27</sup> Auditing is part of effective governance in Banking Systems. Basel Committee on Banking Supervision, 'Framework for internal control systems in banking organisations' (Basel, BCBS 1998).

<sup>28</sup> It does not have a statutory basis.

<sup>29</sup> Chartered Institute of Internal Auditors, 'Consultative Document: Effective Internal Audit in the Financial Services Sector Draft recommendations to the Chartered Institute of Internal Auditors' (11<sup>th</sup> February 2013) [https://www.iaa.org.uk/media/212348/effective\\_internal\\_audit\\_in\\_fs\\_consultation\\_document\\_for\\_web.pdf](https://www.iaa.org.uk/media/212348/effective_internal_audit_in_fs_consultation_document_for_web.pdf) accessed 27<sup>th</sup> January 2016.

<sup>30</sup> Basel Committee on Banking Supervision, Internal audit in banking organisations and the relationship of the supervisory authorities with internal and external auditors, Basel, Basel Committee on Banking Supervision July (2000). See Basel Committee on Banking Supervision Consultative document The internal audit function in banks, December 2011) <http://www.bis.org/publ/bcbs210.pdf> accessed 27<sup>th</sup> January 2016; Basel Committee on Banking Supervision, 'The internal audit function in Banks' (BCBS, June 2012) <http://www.bis.org/publ/bcbs223.pdf> accessed 27<sup>th</sup> January 2016.

<sup>31</sup> Tomas Hrebik, 'Internal Audit in Financial Institutions' (2015) University of Economics in Prague, 9 Journal of International Scientific Publications, Economy & Business, 6 <http://www.scientific-publications.net/get/1000012/1431690554840972.pdf> accessed 27<sup>th</sup> January 2016.

whether directors and other individuals performing controlled and authorised functions might be held accountable. The regime is stricter than the traditional company law set of Directors' Duties<sup>32</sup> that, although illustrative to understand their duties and responsibilities<sup>33</sup>, does not reach the level of specificity required in financial firms. As financial firms operate in regulated markets, the directors' duties are not limited to benefit the company, shareholders and third parties deemed as 'stakeholders'. Instead, financial firms are obliged to promote the interest of consumers and meet high public expectations. Especially after a period of financial crisis and scandals in the banking sector, financial regulators are committed to enhancing conduct in the market.

The discussion is particularly relevant because the UK government and financial regulators are introducing a range of reforms to increase individual accountability within the financial sector<sup>34</sup>. The Parliamentary Commission on Banking Standards (PCBS) recommended bringing forward reforms in relation to individual conduct and standards in banking<sup>35</sup>. Such a reform was included in the Financial Services Act 2013 amending the FSMA 2000. The reforms replaced the Approved Persons Regime (APR)<sup>36</sup> of Part V of FSMA for individuals who work in banking. The Banking Act 2013 introduced the Senior Managers and Certification Regime (SM&CR) that came into effect on 7<sup>th</sup> March 2016. Although the SM&CR was initially conceived to rule conduct in the banking

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<sup>32</sup> Companies Act 2006 and Insolvency Act 1986 are the Statutory Basis of Directors Duties in the UK. 'It maintains a primary duty on directors to act in the interests of shareholders. Directors are bound by fiduciary duties at general law in relation to the Company. However, it also requires that, in fulfilling this duty, directors specifically have regard to a number of other matters, including: the likely consequences of any decision in the long term; the interests of the company's employees; the need to foster the company's business relationships with suppliers, customers and others; and the impact of the company's operations on the community and the environment.' See John Birds and Anthony.J. Boyle (eds), *Boyle and Birds' Company Law* (Bristol, Jordan Publishing, 2014) 110.

<sup>33</sup> In Company Law Directors general duties are based on certain common law rules and equitable principles. The relationship between statutory duties and the previous duties based on case law is recognised in s. 170 (3)(4), 171-174 Companies Act 2006.

<sup>34</sup> See FCA website <https://www.the-fca.org.uk/improving-individual-accountability> accessed 25<sup>th</sup> January 2016.

<sup>35</sup> See the PCBS final report Changing banking for good (HL Paper 27, HC 175, published 19 June 2013) and the government's response (Cm 866, published 8 July 2013).

<sup>36</sup> Under the APR, financial services firms ("authorised persons" under FSMA) may not employ a person to perform a "controlled function", unless that person has been approved by the Prudential Regulation Authority (PRA) or the Financial Conduct Authority (FCA) following an application by the firm concerned.



sector<sup>37</sup>, the government is proposing to extend the regime to all sectors of the financial services industry<sup>38</sup>. To that end, HM Treasury introduced a Bill to Parliament on the extension of the regime and is likely to be implemented in 2018<sup>39</sup>.

Although it could be assumed that the SM&CR will be applicable to SMs and employees of CCPs in the OTCDM, this research argues that the SM&CR would not be automatically applicable to them. This is because, as was explained earlier, it has been said that neither the FCA nor the PRA supervise CCPs. The BoE will have to clarify which is the competent regulator in this area. This is whether it is the Bank or, as is argued in this research, it is the FCA. Thus, if the appropriate regulator is the Bank, it will have to issue rules regarding the individual accountability of SMs and employees of CCPs operating in the OTCDM. If the appropriate competent regulator is the FCA, the SM&CR will be directly applicable to all individuals who work in the CCPs by 2018.

In order to develop this argument, the next section addresses several questions concerning the legal framework governing the responsibility and accountability of senior managers and employees. It explains generalities of the former Approved Persons Regime (APR) and how it illustrates the new Senior Managers and Certification Regime (SM&CR). It also explores the key features of the SM&CR. It then argues that the implementation of the SM&CRs would contribute to building up the governance and conduct of business regime of CCPs.

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<sup>37</sup> 'The rules apply to banks, building societies, credit unions, the largest investment banks that are regulated by the PRA, branches of foreign banks operating in the UK'. See FCA website <https://www.the-fca.org.uk/improving-individual-accountability#sthash.JLCYEDGU.dpuf> accessed 25<sup>th</sup> January 2016.

<sup>38</sup> HM Treasury, 'Senior Managers and Certification Regime: extension to all FSMA authorised persons' (October 2015) [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/468328/SMCR\\_policy\\_paper\\_final\\_15102015.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468328/SMCR_policy_paper_final_15102015.pdf) accessed 25<sup>th</sup> January 2016.

<sup>39</sup> FCA website <https://www.the-fca.org.uk/improving-individual-accountability#sthash.JLCYEDGU.dpuf> accessed 25<sup>th</sup> January 2016.

### 5.2.1.2.3 The Approved Persons Regime (APR)

The regulation of directors and managers was initially included in the Approved Persons Regime (APR). These individuals could be deemed 'approved persons' if their role within the organisation is considered a 'controlled function'<sup>40</sup>. In order to perform a 'controlled function'<sup>41</sup>, the individual must perform an activity that is significant to the regulatory process, and assist the regulator to fulfil its regulatory objectives<sup>42</sup>. This means that only approved persons can perform controlled functions<sup>43</sup>. The criteria for approval is that the individual meet and maintain the requirements of the fit and proper test (FIT), and that he/she performs the controlled function in accordance with a set of standards called 'Statements of Principle and Code of Practice for Approved Persons (APER).

#### 5.2.1.2.3.1 The Fit and Proper Test (FIT)<sup>44</sup>

The main criteria used by regulators to assess whether an individual is 'fit and proper' to perform 'controlled functions' consider: i) honesty, integrity and reputation<sup>45</sup>; ii) competence and capability<sup>46</sup>; and iii) financial soundness<sup>47</sup>. The inclusion of these criteria strengthens the 'approved persons' responsibility and accountability regime. The appropriate regulator considers that a person is 'fit and proper' when he/she is suitable to be approved by the appropriate regulator,

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<sup>40</sup> FSA, 'Factsheet for All Firms: Becoming an Approved Person' (08/11) 1 [http://www.fca.org.uk/static/fca/documents/fsa-factsheet-approved.pdf?trk=profile\\_certification\\_title](http://www.fca.org.uk/static/fca/documents/fsa-factsheet-approved.pdf?trk=profile_certification_title) accessed 25<sup>th</sup> January 2016.

<sup>41</sup> A complete list of FCA Controlled Functions <https://www.handbook.fca.org.uk/handbook/SUP/10A/4.html> accessed 25<sup>th</sup> January 2016.  
A complete list of PRA Controlled Functions <http://www.prarulebook.co.uk/rulebook/Content/Chapter/271670/19-10-2015> accessed 25<sup>th</sup> January 2016.

<sup>42</sup> FSA, Factsheet for All Firms: Becoming an Approved Person (08/11) ( n 36).

<sup>43</sup> s 59 FSMA 2000. A function is 'controlled' when it fulfills the general conditions of s. 59(5)-(7) of the FSMA 2000. They are: s.59 (5) where the individual has significant influence over the conduct of the approved person; s.59 (6) where the individual deals with customers; s. 59(7) where the individual deals with the property of its customers (...).

<sup>44</sup> FIT 1.3.1. FCA, 'Fit and Proper Test for Approved Persons' <https://www.handbook.fca.org.uk/handbook/FIT.pdf> accessed 25<sup>th</sup> January 2016.

<sup>45</sup> FIT 2.1.

<sup>46</sup> FIT 2.2.

<sup>47</sup> FIT 2.3.

and thereby perform ‘controlled functions’<sup>48</sup>. The approval decision<sup>49</sup> implies the assessment of the individual’s character, and the complexity of the activities and business of the regulated firm where the individual works<sup>50</sup>. Similarly, the appropriate regulator shall assess the risks<sup>51</sup> that the individual poses to consumers and confidence in the financial system<sup>52</sup>. The approval can be withdrawn when the appropriate regulator considers that the individual is no longer ‘fit and proper’ to take up the ‘controlled function’ he/she was approved for. However, the withdrawal of approval would only occur when there is a blatant disregard of conduct standards as probity<sup>53</sup>, competency, and the standard of care and skill. The intervention of the appropriate regulators is not always justified<sup>54</sup>. For instance, in the event of minor indiscretions<sup>55</sup> the firm is expected to use its internal disciplinary proceedings to make the individual accountable.

#### 5.2.1.2.3.2 Statements of Principle and Code of Practice for Approved Persons (APER)

The Statements of Principle are high-level standards that apply to Approved Persons for the ‘controlled functions they perform’<sup>56</sup>. The Code of Practice for Approved Persons is a guide that explains, through examples, whether an approved person’s conduct complies with the Principles<sup>57</sup>.

APER applies to FCA and PRA controlled functions in relation to approved persons (Accountable Functions). It also applies to the performance of

<sup>48</sup> Gray and Hamilton, *Implementing Financial Regulation: Theory and Practice* (n 21) 71.

<sup>49</sup> FSMA 2000 s 59.

<sup>50</sup> Dalvinder Singh, ‘Corporate Governance and Banking Supervision’ in Dalvinder Singh, *Banking Regulation of UK and US Financial Markets* (Ashgate Publishing, 2007) 100.

<sup>51</sup> Joanna Gray emphasises that a consequence of the approved persons regime is that it “exposes the senior individual with ultimate responsibility under SYSC (...) to a concomitant **wider range of individual risk**” Gray and Hamilton, *Implementing Financial Regulation: Theory and Practice* (n 21) 76.

<sup>52</sup> Singh, ‘Corporate Governance and Banking Supervision’ (n 50) 103

<sup>53</sup> “Probity refers to an individual’s uprightness and honesty” *ibid.* 101.

<sup>54</sup> Gray and Hamilton, *Implementing Financial Regulation: Theory and Practice* (n 21) 72.

<sup>55</sup> *ibid.*

<sup>56</sup> FSA, Factsheet for All Firms: Becoming an Approved Person (08/11) (n 36).

<sup>57</sup> FCA Handbook, Statements of Principle and Code of Practice for Approved Persons (APER) <https://www.handbook.fca.org.uk/handbook/APER/1/> accessed 25<sup>th</sup> January 2016.

any other functions related to a regulated activity<sup>58</sup>. The statements of principle include the duty of approved persons to act with integrity, to act with due skill, care and diligence, to observe proper standards of market conduct, to deal with regulators in an open and cooperative way and disclose appropriately any information, to take reasonable steps to ensure that the business of the firm is organised so that it can be controlled effectively, and to take reasonable steps to ensure that the business of the firm complies with the relevant requirements and standards of the regulatory system<sup>59</sup>.

In order to determine whether an approved person's conduct complies with the statement of principle, regulators issue the Code of Practice for Approved Persons<sup>60</sup>. The purpose of the Code is to set out descriptions of conduct<sup>61</sup> which, in the regulator's opinion, do not comply with the relevant Statements of Principle. Moreover, the Code sets out certain factors<sup>62</sup> to assess an approved persons' conduct. For instance, to take into account whether the approved person exercised reasonable care when considering the information available to him/her or the knowledge he/she had, or whether he/she reached a reasonable conclusion upon which he/she acted, or the nature, complexity of the firm's business<sup>63</sup>. Furthermore, the Code also includes specific conducts to each one of the principles<sup>64</sup>.

#### **5.2.1.2.3.3 Enforcement powers in the APR**

According to the APR, approved persons must comply with the statements of principle, which are a series of binding standards of professional

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<sup>58</sup> APER 1.1A.2 P Available at <https://www.handbook.fca.org.uk/handbook/APER.pdf> accessed 25<sup>th</sup> January 2016.

<sup>59</sup> APER 2.1A.3 P.

<sup>60</sup> Code of Practice for Approved Persons is issued under section 64 of the Act.

<sup>61</sup> APER 3.1A.1.

<sup>62</sup> APER 3.3.1E.

<sup>63</sup> APER 3.3.1E.

<sup>64</sup> APER 4.1.1A G.

conduct issued by the FCA and PRA. Regulators were bestowed with enforcement powers when ‘approved persons’ breach the statements of principle, or were knowingly concerned in a breach of regulatory requirements by the firm. The regulators can take a variety of enforcement actions against an approved person<sup>65</sup>. For instance, to withdraw approval or prohibit an individual from undertaking controlled functions<sup>66</sup>, to impose a fine<sup>67</sup>, name and shame by publishing a statement of the misconduct<sup>68</sup>. The FCA could also issue a private warning<sup>69</sup>.

#### 5.2.1.2.4 The Senior Managers and Certification Regime (SM&CR)

The multiple misconduct events in the UK financial services showed the need to reform the existing approved persons’ regime<sup>70</sup>. The PCBS stated that the APR was a ‘complex and confused mess’, and that it failed to give senior managers clear expectations as to their responsibilities<sup>71</sup>. The PCBS recommended the design of a regime, the new SM&CR that includes three pillars, and is applicable to all ‘relevant authorised persons’ (RAP)<sup>72</sup>. The first pillar is the Seniors Persons Regime (SPR) that focuses on individuals authorised to perform key roles and responsibilities in regulated firms called Senior Management Functions (SMF). SMF are performed by persons responsible for managing one or more aspects of the authorised person’s affairs, so far as relating to the activity, and those aspects involve, or might involve, a risk of serious

<sup>65</sup> FSMA 2000 s. 66 (2).

<sup>66</sup> FSMA 2000 ss. 63(1) and (1A) and 56(1).

<sup>67</sup> FSMA 2000 s. 66(3), s.206.

<sup>68</sup> FSMA s. 66(3), s. 205.

<sup>69</sup> FCA, ‘Enforcement Guide’ (FCA 7.10-7.17) 2014  
[https://www.handbook.fca.org.uk/handbook/document/EG\\_Full\\_20140401.pdf](https://www.handbook.fca.org.uk/handbook/document/EG_Full_20140401.pdf) accessed 25<sup>th</sup> January 2016.

<sup>70</sup> Senior Managers and Certification Regime—individual accountability in the banking sector. Practice notes, Lexis Nexis  
<http://www.lexisnexis.com/uk/lexispsl/financialservices/document/393814/5DGP-02W1-F18F-P416> accessed 25<sup>th</sup> January 2016.

<sup>71</sup> Parliamentary Commission on Banking Standards, ‘Changing banking for good’ (Final Report, para 564) (2013/2014)  
<http://www.publications.parliament.uk/pa/jt201314/jtselect/jtpebs/27/2704.htm> accessed 25<sup>th</sup> January 2016.

<sup>72</sup> According to FSMA 2000, s 71A, a bank, a building society, a credit union or a PRA-designated investment firm.

consequences— for the authorised person, or for business or other interests in the UK<sup>73</sup>.

The FCA or the PRA must approve all individuals that will perform SMF (referred to as Senior Managers). Senior Managers specified by the PRA will require pre-approval by the PRA with the FCA's consent, and Senior Managers specified by the FCA will require pre-approval by the FCA only. The regulatory pre-approval requires the submission of Statement of Responsibilities and the assertion that the candidate is a fit and proper person to perform the respective SMF<sup>74</sup>. The PRA and the FCA might include any additional conditions they deem appropriate, and if necessary, order the review of the Statement of Responsibilities. Moreover, regulators can vary existing approvals either at the firm's initiative or their own<sup>75</sup>. Along with the control of regulators, firms are legally required to assess the fitness and propriety of their senior managers at least annually.

The Second Pillar is the Certification Regime applicable to anyone working in banking, whose actions or behaviour could seriously harm the bank, its reputation or its customers<sup>76</sup>. The regime requires RAP to take reasonable care to ensure that such harmful actions are avoided, or that the firm has certified employees as fit and proper to perform 'significant-harm functions'. Senior Managers are responsible for conducting and reviewing the certification process<sup>77</sup>.

The Third Pillar is the Conduct Rules. They replace the existing Statements of Principle and Code of Practice for Approved Persons (APER) contained in the FCA Handbook and PRA Rulebook<sup>78</sup>. The rules will include standards of behaviour that all those covered by the new regimes will be

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<sup>73</sup> FSMA 2000 s 59ZA.

<sup>74</sup> FSMA 2000 s 60A.

<sup>75</sup> FSMA 200 ss 63ZA, 63ZB, 63ZC, 63ZD and 63ZE.

<sup>76</sup> Senior Managers and Certification Regime—individual accountability in the banking sector. Practice notes, Lexis Nexis ( n 69).

<sup>77</sup> FSMA ss 63E and 63F.

<sup>78</sup> FSMA ss 64A and 64B.

expected to meet. Hence, firms must ensure that members of staff are aware of the conduct rules applicable to them.

#### **5.2.1.2.4.1 Senior Management Functions (SMFs)**

The FCA and the PRA set out 17 SMFs. It is necessary that firms identify the members of staff holding SMFs and the relevant regulator that will pre-approve the fitness and propriety of them. There is a transition regime called 'Grandfathering'. According to this regime an individual who was authorised under the current APR, and who is not changing their role would not need to go through the authorisation process in order to continue as approved for the equivalent SMF.

#### **5.2.1.2.4.2 Management Responsibility Map (MRMAP)**

The SM&CR requires firms to present a document describing its management and governance arrangements. The aim is to maintain a clear organisational structure as required by Senior Management Arrangements, Systems and Controls (SYSC). The purpose of the SYSC is to encourage firms' directors and senior managers to take appropriate practical responsibility for their firms' arrangements on matters likely to be of interest to the appropriate regulator, to increase certainty about how firms must take reasonable care to organise and control its affairs responsibly and effectively, with adequate risk management systems<sup>79</sup>. The SYSC also seeks to encourage firms to vest responsibility for effective organisation in specific directors and senior managers, and to create a common platform of organisational systems and controls requirements for all firms<sup>80</sup>.

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<sup>79</sup> FCA Handbook, Senior management arrangements, Systems and Controls. January 2016. SYSC 1.2.1. <https://www.handbook.fca.org.uk/handbook/SYSC.pdf> accessed 25<sup>th</sup> January 2016.

<sup>80</sup> SYSC 1.2.1

The implementation of the MRMAP implies access to clear and transparent information about the internal organisation of the firm and lines of responsibility<sup>81</sup>. For the first time, qualitative information<sup>82</sup> concerning the delegation of responsibilities among senior managers and other employees will be available to supervisors.

#### **5.2.1.2.4.3 Statements of Responsibility (SoR)**

The Statements of Responsibility (SoR) must clearly describe the SMFs allocated to each SM, and follow the FCA<sup>83</sup> and PRA<sup>84</sup> requirements. The SoR are limited to the accountability rules of the SM&CR.

#### **5.2.1.2.4.4 Conduct Rules to Non-Executive Directors (NEDs)**

The FCA issued guidance on how conduct rules would apply to NEDs. In the consultation paper and policy statement<sup>85</sup> the FCA announces that the parameter applicable to NEDs is the standard of care, skill and diligence of a reasonably diligent person with the general knowledge and performing the

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<sup>81</sup> Deloitte, 'Individual Accountability in UK Banking | Details of Senior Management and Certification Regimes Emerge' (31<sup>st</sup> July 2014) <http://blogs.deloitte.co.uk/financialservices/2014/07/individual-accountability-in-uk-banking.html> accessed 30<sup>th</sup> March 2016.

<sup>82</sup> *ibid.*

<sup>83</sup> FCA Handbook, SUP 10C.11.23 -28, 32. (2016) <https://www.handbook.fca.org.uk/handbook/SUP/10C/11.html?date=2016-03-07> accessed 25<sup>th</sup> January 2016.

<sup>84</sup> AR2. <http://www.prarulebook.co.uk> ; See Bank of England, 'Strengthening individual accountability in banking' (Supervisory Statement SS28/15 July 2015) <http://www.bankofengland.co.uk/pr/Documents/publications/ss/2015/ss2815.pdf> accessed 25<sup>th</sup> January 2016.

<sup>85</sup> FCA, 'Changes to the Approved Persons Regime for Solvency II firms: Final rules' (Policy Statement: PS15/21) including feedback on CP14/25, CP15/5 and CP15/16), and consequential relating to CP22/15 on strengthening accountability in banking. August 2015 <http://www.fca.org.uk/static/documents/policy-statements/ps15-21.pdf> accessed 25<sup>th</sup> January 2016.



NED's functions<sup>86</sup>. The PRA<sup>87</sup> considers that the Conduct Rules as the duty to act with integrity will apply in the same way for SMs and NEDs, while other rules as the duty of care, skill and diligence will only apply to the NEDs' prescribed responsibilities.

#### **5.2.1.2.4.5 Prescribed Responsibilities (PRs)**

The FCA and PRA published a list of 30 Prescribed Responsibilities (PRs)<sup>88</sup>. These responsibilities must be assigned to individuals that perform SMFs to ensure that they will be accountable in the event of a breach. The distribution of the PRs must be done between executives and NEDs. However, the extent to which such responsibilities are assigned to regulated firms varies according to the type of firm. As a result, PRs can be divided into four groups<sup>89</sup>. The first group of PRs is applicable to all firms: they relate to SMR and CR and the responsibility for financial crime. The second group comprehends the PRs that apply to small firms (firms that have assets of £250m or less), and the third group of PRs applicable to large firms. In all groups the PRs cover risk management, systems and controls, financial resources and legal and regulatory obligations<sup>90</sup> according to the size of the firm. The last group comprises the PRs that only apply to specific types of firms.

As might be anticipated the core features of the SM&CR represent a step forward in terms of individual accountability. Under the previous regime the assessment of individual actions within the firm was a difficult task for supervisors. Although the new regime might be seen as an improvement, it

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<sup>86</sup> *ibid.*

<sup>87</sup> Bank of England, 'Strengthening individual accountability in banking: UK branches of non - EEA banks' (Policy Statement PS/20/15, August 2015).

<sup>88</sup> FCA, Annex 4 to CP 15/22.

<sup>89</sup> Senior Managers and Certification Regime—individual accountability in the banking sector. Practice notes, Lexis Nexis ( n 69).

<sup>90</sup> *ibid.*

does not necessarily prevent the diffusion of collective responsibility. This is because access to information concerning internal organisation and governance arrangements, delegation of responsibilities, and a system of prescribed responsibilities is one part of the regime. It is also important to ensure that supervisors can rely on the accuracy of the information, and that they are in the position to take disciplinary actions against senior managers and employees.

#### **5.2.1.2.4.6 Enforcement powers in the SM&CR**

In the event that Senior Managers (SMs) cease to be ‘fit and proper’, are knowingly concerned in a breach of other requirements, or have personally failed to comply with the Conduct Rules, the PRA and/or the FCA can take enforcement actions<sup>91</sup>. The SM&CR adds a new hypothesis in which regulators might take enforcement actions. Along with the hypotheses of the former APR, the SM&CR allows regulators to take enforcement actions against SMs when the firm breaches regulatory requirements and the breach takes place in an area of business for which the SM was responsible; and the individual failed to take reasonable steps to prevent the regulatory breach. Once again, the criteria to attribute responsibility to SMs will be determined by the reasonableness of the actions taken to avoid contravention of the regime.

In this area the new SM&CR is under reform. Initially, the SM&CR included a reverse burden of proof. SMs were responsible when a RAP did not comply with a relevant requirement, and they were unable to prove that they took ‘reasonable steps to prevent or stop the non-compliance event’. However, this ‘presumption’ has been replaced with the Duty of Responsibility. According to this duty, where there has been a breach in the area for which SMs are responsible, the burden will no longer be on SMs to prove that they took reasonable steps to prevent regulatory breaches. Instead, if regulators want to bring disciplinary proceedings, they will have to prove that SMs did not take

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<sup>91</sup> FSMA ss 66A and 66B.

such reasonable steps. Although the reform has been positively perceived by SMs<sup>92</sup>, regulators emphasise that, in practice, this is merely a change of process, not substance<sup>93</sup>.

From regulators' perspective, the adoption of the Duty of Responsibility makes clear that they will hold somebody accountable only when personal culpability on the part of the individual is established<sup>94</sup>. This is when the conduct of the individual falls below the standards of reasonableness for someone in his position<sup>95</sup>. Until now, it is still unclear whether the PRA will use the presumption of responsibility in some cases<sup>96</sup>. Paul Fisher emphasised that the PRA will consider each situation on its merits, and that there may be situations where SMs may be guilty under the Presumption of Responsibility<sup>97</sup>. He strongly denied that the presumption will only be used in significant cases or cases of last resort<sup>98</sup>.

The FCA has said that it will use its enforcement powers 'proportionally and fairly'<sup>99</sup>. The purpose of the FCA is to establish whether SMs have adequate governance arrangements and control frameworks<sup>100</sup>, i.e. they have implemented adequate training, they have communicated to staff their responsibilities, and whether systems of control have been improved.

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<sup>92</sup> Elisabeth Bremner, Rachel McDonnell, Sally Tavares and Andrew Reeves, 'Senior managers' regime: individual accountability and learning lessons' (Compliance Officer Bulletin 2015) 2.

<sup>93</sup> Andrew Bailey, Chief Executive of the PRA. in *ibid* 3.

<sup>94</sup> Tracey McDermott, 'Speech on Personal Accountability' (FCA, 2<sup>nd</sup> December 2015) <http://www.fca.org.uk/news/speeches/personal-accountability> accessed 26<sup>th</sup> January 2016.

<sup>95</sup> Tracey McDermott, acting Chief Executive FCA. In her evidence to the PCBS.

<sup>96</sup> Andrew Bailey, Chief Executive of the PRA. In Bremner, McDonnell, Tavares and Reeves, 'Senior managers' regime: individual accountability and learning lessons' (n 92) 4.

<sup>97</sup> *ibid*.

<sup>98</sup> Paul Fisher speech by the time of publication of the PRA Financial Statement. Paul Fisher, 'The Financial Regulation Reform agenda: What has been achieved and how much is left to do?' (Bank of England 30<sup>th</sup> September 2015. <http://www.bankofengland.co.uk/publications/Documents/speeches/2015/speech845.pdf> accessed 26<sup>th</sup> January 2016.

<sup>99</sup> FCA, 'Statement from the Financial Conduct Authority following the announcement by HM Treasury of changes to the Senior Managers' Regime'. (October 2015) <https://www.fca.org.uk/news/hm-treasury-changes-to-the-senior-managers-regime> accessed 26<sup>th</sup> January 2016.

<sup>100</sup> FCA, 'Strengthening Accountability in Banking: Final rules (including feedback on CP14/31 and CP15/5) and consultation on extending the Certification Regime to wholesale market activities' (CP15/22 July 2015) <http://www.fca.org.uk/static/documents/consultation-papers/cp15-22.pdf> accessed 26<sup>th</sup> January 2016.

Furthermore, Section 36 of the Banking Act 2013 created a new criminal offence, applicable to SMs, relating to a reckless decision causing a financial institution to fail<sup>101</sup>.

#### **5.2.1.2.5 Individual Accountability Regime for CCPs**

The foregoing overview of the SM&CR is brought to this section to argue that its implementation would complement governance rules of CCPs, as well as the conduct of business regime. It would solve the absence of individual accountability regime for senior managers and employees of CCPs. The question is whether the former Approved Persons Regime (APR), replaced by the Senior Managers and Certification Regime (SM&CRs), is applicable to CCPs' Senior Managers and employees. The reason to question the applicability of the regime is that the FSMA 2000 bestows the PRA and the FCA, but not the BoE, with certain powers and responsibilities over individuals that carry 'controlled functions' within UK financial services firms.

Hence, this research argues that the first impediment to apply the SM&CR to individuals who work in CCPs is that neither the PRA nor the FCA are acting as CCPs regulators. It could be argued, however, that Part V of FSMA uses the word 'authority' to indicate the regulator that carries out the approval proceedings. Therefore, a literal interpretation of these statutory provisions could lead to understand that 'authority' is not restricted to PRA and FCA - it also might refer to the Bank of England when it acts as regulator (e.g. regulator of CCPs). Nonetheless, the next difficulty is that the Bank does not have further guidance regarding approval proceedings and rules governing the regime of approved persons and controlled functions, as the PRA and FCA do.

Along with the difficulties concerning the lack of clarity regarding the implementation of the SM&CR, there is the fact that CCPs are not explicitly required to have in place standards of conduct or 'fitness and propriety' tests. As

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<sup>101</sup> This provision applies only to Senior Managers working in banks, building societies and PRA-designated investment firms. It does not extend to Senior Managers in credit unions.

was explained earlier, the process of authorisation and recognition requires CCPs to meet the requirements of Section 288 of FSMA and Article 17 of EMIR. Also, any applicant for recognition must comply<sup>102</sup> with all the requirements established by the MiFID<sup>103</sup>, as prescribed by Section 290 (1A)<sup>104</sup>. However, none of these requirements make express reference to standards of conduct that should be observed by individuals who work in the CCP. In this scenario, it is the national authority – the BoE - the one in charge of developing a regime that enhances the standards of conduct and distribution of responsibilities to all levels within the CCP, and this is not a regulatory priority of the Bank<sup>105</sup>.

This research argues that including rules of individual accountability applicable to SMs and employees of CCPs would benefit and complete, at least partially, the governance and conduct of business regime. It will contribute to make clear that SMs and employees of CCPs are not only obliged to follow internal codes of conduct and corporate governance rules<sup>106</sup> and fiduciary duties, but they also must observe the rules and standards that the SM&CR imposes to individuals working in financial firms.

#### **5.2.1.2.5.1 The relevance of the regime**

The claimed benefits that the SM&CR brings to the banking sector could be replicated for the CCPs in the OTCDM. Hence, the importance of adopting

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<sup>102</sup> FSMA 2000 Part XVIII Recognised Investment Exchanges and Clearing Houses. (Hereinafter FSMA Part XVIII) Section 286 (6) In the case of an investment exchange, requirements resulting from this section are in addition to requirements which must be satisfied by the exchange as a result of section 290(1A), before the Authority may make a recognition order declaring the exchange to be a recognised investment exchange’.

<sup>103</sup> Commission adopts proposals for a Directive on markets in financial instruments repealing Directive [2004/39/EC] of the European Parliament and of the Council, and for a Regulation on markets in financial instruments and amending Regulation [EMIR] on OTC derivatives, central counterparties and trade repositories.

<sup>104</sup> FSMA pt XVIII. s 290 Recognition orders (...) (1A) (...)’ See HM Treasury Consultation Paper: A New Approach to Financial Regulation: The Blueprint for Reform (Cm 8083), (June 2011).

<sup>105</sup> Ch 3 of this thesis.

<sup>106</sup> Interview Grant Elliot (Senior Analyst Clearing and Business Development), Matthew Gravelle (Government Relations Team) and Huong Auduc (Legal Department) CME Clearing Europe Ltd, London, 12<sup>th</sup> June 2014.

the SM&CR lies on the clarification of the roles and responsibilities of SMs and all other individuals who work in the CCP. The effective implementation will require the engagement of all regulated individuals. In particular, SMs should be satisfied that the governance structures of the CCP are compatible with the spirit of the regime and the responsible management of their business<sup>107</sup>. This is consistent with idea that CCPs should be managed in a manner consistent with public interest<sup>108</sup>.

The spirit of the regime is to protect the system, hereby public interests, by preventing and sanctioning any type of misconduct of individuals who work in the financial services industry. This consideration is especially relevant to the role CCPs have in the OTCDM. This is because, as explained in chapter 2, CCPs are nodes of concentration of risk and interconnectedness. Their systemically important position in the market requires, besides the effective design and implementation of prudential rules, the adoption of high standards of conduct that apply to all individuals who work in CCPs.

The aim of the SM&CR to raise the standards of individual conduct would enhance the governance structure of CCPs. This is because the SM&CR, as an improvement of the earlier APR, is designed to fit with the realities of complex financial services firms<sup>109</sup>, as CCPs are. The system of responsibilities of all regulated individuals is reinforced with a variety of changes. These changes include clarity of reporting lines and responsibilities, a recruitment that selects the ‘fit and proper’ person for the job, a performance management that ensures staff are properly trained and equipped for their roles, and considering consumer and market outcomes as part of everyday decision making<sup>110</sup>.

All these features of the SM&CR would help to overcome, at least partially, one of the shortcomings or ‘fractures’ identified in this research. It will

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<sup>107</sup> Martin Wheatley, ‘From Accountability to Reality’ (Speech- CEO of the FCA, 14<sup>th</sup> July 2015) <http://www.fca.org.uk/news/accountability-from-debate-to-reality> accessed 26<sup>th</sup> January 2016.

<sup>108</sup> Bank of England, ‘The Bank of England’s approach to the supervision of financial market infrastructures (April 2013) 5 (Hereinafter BoE’s approach to FMIs’ Supervision, 2013).

<sup>109</sup> Wheatley, ‘From Accountability to Reality’ (Speech- CEO of the FCA, 14<sup>th</sup> July 2015) ( n 107).

<sup>110</sup> *ibid.*

complement the governance regime for CCPs, which has the potential to ameliorate the issues coming from innovation risks. The adoption of an individual accountability regime will also help to solve the fracture of the regime, explained in Chapter 3, concerning the lack of conduct of business regime. As individual accountability regimes, as the SM&CR, are a part of conduct of business rules; the fracture would be partially solved with the adoption of the SM&CR, and the explicit adoption of standards ‘fitness and propriety’ and parameters of conduct applicable to SMs and employees of the CCP.

Assuming that the SM&CR is going to be extended by 2018 to all firms authorised under FSMA, the CCPs might be covered by the regime. The challenge is, however, to see whether and how the Bank of England will further develop the rules of CCPs’ senior managers and employees’ responsibility. This research argues that the extension of the SM&CR does not automatically solve the problem of the lack of individual accountability rules in the CCPs regime. This is because, as was explained earlier, it has been said that neither the FCA nor the PRA supervise CCPs. Although the extension of the regime does not solve the issue, the fact that the SM&CR will be applicable to all firms authorised under FSMA stresses the need to solve the question concerning the individual accountability regime of CCPs in the OTCDM. The BoE will have to clarify which is the conduct regulator of CCPs - that is whether it is the Bank or, as is argued in this research, it is the FCA. In the first case, the Bank will have to issue rules regarding individual accountability of SMs and employees of CCPs operating in the OTCDM. In case it is recognised that the FCA is the conduct regulator, the SM&CR will be directly applicable to individuals who work in the CCPs.

### 5.2.2 CCPs' demutualised structure

It has been suggested that the governance of CCPs is key to ensuring that moral hazard problems at the level of the CCP are mitigated<sup>111</sup>. The recommendation is that CCPs should be organised as cooperatives or mutual organisations, whose users are its owners<sup>112</sup>. The benefit of this type of organisation is that CCPs and CMs interests coincide; both parties will benefit from profits or will assume losses. Hence, both CCPs and CMs have incentives to participate in CCP default management and on the overall resilience of central clearing arrangements<sup>113</sup>.

However, as was the case of exchanges<sup>114</sup>, CCPs followed the trend of demutualisation<sup>115</sup>. The term 'demutualisation' is used with different meanings; however, here it refers to the phenomena of changing the ownership structure of the CCP from being solely owned by users to being owned by investors on a for-

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<sup>111</sup> Bruno Biais, Florian Heider and Marie Hoerova, 'Incentive compatible centralised clearing' in OTC Derivatives: New rules, new actors, new risks' (Banque du France- Financial Stability Review. N 17 April 2013) [https://www.banque-france.fr/fileadmin/user\\_upload/banque\\_de\\_france/publications/Revue\\_de\\_la\\_stabilite\\_financiere/2013/rsf-avril-2013/16-BIAIS\\_Bruno.pdf](https://www.banque-france.fr/fileadmin/user_upload/banque_de_france/publications/Revue_de_la_stabilite_financiere/2013/rsf-avril-2013/16-BIAIS_Bruno.pdf) accessed 12<sup>th</sup> November 2015.

<sup>112</sup> *ibid.*

<sup>113</sup> Former Federal Reserve Governor, Randall S. Kroszner, notes that risk mutualization 'creates incentives for all of the exchange's members to support the imposition of risk controls that limit the extent to which the trading activities of any individual member expose all of [the] other members to losses from defaults.' Federal Reserve Bank of Chicago, "Central Counterparty Clearing: History, Innovation, and Regulation" (Fed, *Economic Perspectives* 4<sup>th</sup> Quarter ) 38.

<sup>114</sup> The International Federation of Stock Exchanges (FIBV - initials in French- *Federation Internationale des Bourses Valeurs*) surveyed exchanges in October 2000 '78% of exchanges said that they either had approval to demutualize or were actively considering demutualization'. Demutualisation: The Challenges facing Global Exchanges <http://www.mondovisione.com/exchanges/handbook-articles/demutualisation-the-challenges-facing-global-exchanges/> accessed 12<sup>th</sup> November 2015.

<sup>115</sup> There is an extensive literature concerning exchange demutualization. See, Ruben Lee, *Running the World's Markets, The Governance of Financial Infrastructure* (Princeton, NJ: Princeton U. Press, 2011) and sources cited therein. Noting that demutualization was a response to the competitive challenge posed by disruptive technologies that reshaped securities markets in the 1990s and early 2000s, as well as the development of truly international trading; See, e.g., Alfredo Mendiola and Maureen O'Hara, 'Taking Stock in Stock Markets: The Changing Governance of Exchanges' (Working Paper, Cornell University, 2003) <http://ssrn.com/abstract=431580>; See Benn Steil, 'Changes in the Ownership and Governance of Securities Exchanges: Causes and Consequences' (Wharton Financial Institutions Center, Working Paper No 02-15 February, 2002)) noting that members of mutualized exchanges have an incentive to "resist both technological and institutional innovations which serve to reduce demand for their intermediation services") <http://fic.wharton.upenn.edu/fic/papers/02/0215.pdf> accessed 12<sup>th</sup> November 2015.



profit basis<sup>116</sup>. Accordingly, CMs participate in the mutualisation of losses, whilst the owners of the CCP receive the profits. Under the demutualised structure, CCPs might have part of their capital committed to the default resources. Despite this, the governance of the CCP allows the CMs to have a voice in matters related to risk management, as is contemplated in EMIR. Eurex, the clearinghouses of the Intercontinental Exchange, Inc. (ICE) and the CME Clearing House Division are examples of demutualised CCPs.

### 5.2.2.1 Conflicting interests

The demutualised structure of CCP brings to the forefront the divergent interests present in the risk management governance of the CCP. These are the tensions<sup>117</sup> between the interests of the CCP's owners and the interests of the CMs. Recognising the conflicting interests of CCPs and CMs Paul Tucker observed, “the *quid pro quo* has to be involvement in risk policies and practices’. This means access to information and management of risk at the same time. The efficiency of governance rules relies on the coordination of CCPs’ and CMs’ interests, which in turn should be articulated with the risk management practices. Therefore, the question is whether allowing the responsible and significant participation of CMs in CCP governance would solve the tensions of conflicting interests and to what extent.

The conflict of interest within the demutualised CCP comprises three types of interests: CCPs’ owners, Clearing Members (CMs), and prominently the public interest. In a demutualised CCP, owners of the CCP are external investors, they are ‘external’ because they are not involved with the CCPs’ clearing service.

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<sup>116</sup>Lee, *Running the World's Markets: The Governance of Financial Infrastructure*.ibid.

<sup>117</sup> FIA, ‘FIA Global CCP Risk Position Paper’ (April, 2015).

[https://fia.org/sites/default/files/content\\_attachments/FIAGLOBAL\\_CCP\\_RISK\\_POSITION\\_PAPER.pdf](https://fia.org/sites/default/files/content_attachments/FIAGLOBAL_CCP_RISK_POSITION_PAPER.pdf) ; The Clearing House, ‘Central Counterparties: Recommendations to Promote Financial Stability and Resilience’ (Clearing House Banking Brief White Paper Series, December 2012). <https://www.theclearinghouse.org/~media/files/association%20documents/20121217%20tch%20white%20paper%20on%20central%20counterparty%20risk.pdf> accessed 5<sup>th</sup> October 2015. Jeff Stehm, “Clearance and settlement systems for securities: critical design choices in emerging market economies,” (World Bank Discussion Papers No. WDP 321, Washington, D.C., 1996) [http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/1996/04/01/000009265\\_3961219102438/Rendered/PDF/multi\\_page.pdf](http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/1996/04/01/000009265_3961219102438/Rendered/PDF/multi_page.pdf) accessed 5<sup>th</sup> October 2015.

Their interest is therefore limited to the ‘operation on normal commercial for-profit basis’<sup>118</sup>; they seek to obtain an adequate return on their investment<sup>119</sup>. The issue here is that those ‘external investors’, as owners of the CCP, have no interest in managing systemic risk<sup>120</sup>; this is because the majority of the CCP’s losses are mutualised amongst CMs. ‘Moral hazard’ here refers to the fact that as ‘external investors’ are largely protected from CCPs’ losses, they are likely to overexpose the CCP to certain risks in order to maximize their profits. In this scenario, it has been argued that owners and managers<sup>121</sup> might be tempted to ‘engage in correlation-seeking’ that increases the risks for the CCP and thereby systemic risk. Correlation-seeking comprises the practices whereby managers ‘correlate their firm’s contingent debt obligations with insolvency risk’<sup>122</sup>. This practice benefit shareholders at unsecured creditors’ expense<sup>123</sup>.

The implications of practices of ‘shareholder opportunism’, as correlation seeking, can be identified in the three most famous bailouts in the history of the US market: AIG, Fannie Mae, and Freddie Mac. Squires argues that in these three cases managerial decisions not only cause deep losses, but it may have been consistent with the managers’ duty to maximize shareholder value<sup>124</sup>. AIG’s case is an example of ‘reverse correlation-seeking’. It consisted on AIG reallocating its investment portfolio into assets<sup>125</sup> that increase internal correlations on the firm’s contingent debts. Fannie<sup>126</sup> and Freddie used a type of correlation-seeking that occurs when a firm has passed the “tipping point” where its contingent debts are large enough in themselves to cause insolvency, and the firm piles on additional correlated debts that pose no downside risk to shareholders. In all three cases the use of ‘correlation-seeking’ reduced equity

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<sup>118</sup> Lee, *Running the World’s Markets: The Governance of Financial Infrastructure*. (n 115) 233.

<sup>119</sup> *ibid* 265.

<sup>120</sup> Griffith, ‘Governing Systemic Risk: Towards a Governance Structure for Derivatives Clearinghouses’ (n 6) 1209.

<sup>121</sup> Correlation-seeking tends to occur when managers have the duty to act in shareholders’ best interest’ Richard Squire, ‘Shareholder Opportunism in a World of Risky Debt’ (2010) 123 Harv. L. Rev. 1183.

<sup>122</sup> *ibid*.

<sup>123</sup> *ibid* 1184.

<sup>124</sup> *ibid* 1153.

<sup>125</sup> John W. Cioffi, *Public Law and Private Power: Corporate Governance Reform in the in the Age of Finance Capitalism* (Cornell University Press, 2010) 3.

<sup>126</sup> See Fannie Mae, Quarterly Report (Form 10-Q) (Mar. 31, 2009).

volatility and simultaneously increased shareholder returns<sup>127</sup>. That is why this practice might adversely affect solvent firms. Therefore, this research argues that a regime of governance for CCPs' would contribute to enhance clarity regarding ownership structure, disclosure and control over the internal process of decision-making process, especially the decisions concerning prices and conditions of contingent debts.

The governance regime is only one part of the tools regulators have available<sup>128</sup>. The discussion regarding the role of corporate governance<sup>129</sup> to enhance director-manager accountability to firms' owners- shareholders is beyond the scope of this research. Indeed, it has been argued that 'more effective corporate governance' may not be a serious part of the solution<sup>130</sup>. This is because any corporate governance system has some constraints that are better solved with robust government regulation. Following this line of thought, the adoption of governance rules for CCPs would contribute to identify and solve the potential conflicts originating by actions taken by CCPs owners.

The interests of CMs are related to the risk management of the CCP because they will be the first to assume losses. They are interested in maintaining the operation of the CCP because they trade through the CCP, but also because the failure will directly affect them. Nonetheless, (the) CMs' interests might conflict with the CCP in two events. Firstly, when CMs seek to keep certain derivatives transactions off the CCP, which this research classifies as innovation risk. Secondly, the CMs' privileged position in front of the CCP, since they dominate the amount of trading and they have the most accurate information about the transactions subject to clearing. The CMs' influence over the amount of trading has been explained as CMs influencing the CCP to increase their market share and exclude competitors<sup>131</sup>. Accordingly, CMs will exert influence

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<sup>127</sup> Squire, 'Shareholder Opportunism in a World of Risky Debt' (2010) (n 107) 1153.

<sup>128</sup> Squire argues that regulators should remove obstacles to creditor monitoring and reconsider executive pay rules that exacerbate shareholder creditor conflict *ibid* 1213.

<sup>129</sup> Singh, 'Corporate Governance and Banking Supervision' (n 50) 80.

<sup>130</sup> Howson, Nicholas Calcina, 'When 'Good' Corporate Governance Makes 'Bad' (Financial) Firms: The Global Crisis and the Limits of Private Law' (2009) 108 Mich. L. Rev., First Impressions, 44.

<sup>131</sup> Griffith, 'Governing Systemic Risk: Towards a Governance Structure for Derivatives Clearinghouses' (n 6) 1197.

over the CCP to impose excessively high margin collateral requirements and thereby limit membership to the largest financial institutions<sup>132</sup>. At this point, this research argues that although such influence is possible, in the UK the limits on clearing membership are imposed by the regime itself. As discussed in the relevant section, access to clearing is one of the issues affecting competition among CCPs. However, regulators already recognised that only the largest financial institutions are in the position to meet clearing membership requirements. And as a result, the current concern is on developing relevant rules on indirect or client clearing.

There is also a potential conflict between the CCP and CMs concerning the asymmetry of information related to cleared transactions. CMs have access to all the relevant and accurate information about CMs and clients' positions, assets, collateral, value of assets and so on. In the ideal scenario, that information is made available in a timely manner to the CCP. However, as discussed earlier in this research, under the current regime CCPs perform a purely administrative role regarding such information, because they do not have the duty to confirm the accuracy of the information provided by CMs. There is a potential source of conflict in the event of differences between the information reported by CMs and the information recorded by CCPs<sup>133</sup>.

Litigation regarding information asymmetries in the OTCDM is not in this case limited to the traditional causes. These are misunderstanding of the instruments<sup>134</sup>, disagreements concerning the interpretation of contractual terms<sup>135</sup> or the formation of the contract<sup>136</sup>, or fraudulent use of derivatives<sup>137</sup>. In

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<sup>132</sup> *ibid.*

<sup>133</sup> 'If investors believe that some companies do not publish accurate information, but cannot distinguish between these companies and those that are truthful, they might accordingly reduce their investments in all companies'. Kuan, J.W., and S.F. Diamond, 'Ringing the bell on the NYSE: Might a nonprofit stock exchange have been efficient?' (Bepress Legal Series Paper 1451, Santa Clara University School of Law, July 13 2006).

<sup>134</sup> *Metropolitan West Asset Management v. Shenkman Capital Management* 2005 U.S. Dist. LEXIS 17003 (S.D.N.Y. 2005).

<sup>135</sup> *The Joint Administrators of Lehman Brothers International (Europe) v Lehman Brothers Finance SA* Case No: A2/2012/1247 Court of Appeal (Civil Division) 14 March 2013 [2013] EWCA Civ 188 2013 WL 617550.

<sup>136</sup> *Lehman Brothers Commercial Corp. v. Minmetals International Non-Ferrous Metals Trading Co* 179 F. Supp. 2d 159 (S.D.N.Y. 2001).

<sup>137</sup> *Caiola v. Citibank* 295 F.3d 312, 312 (2d Cir. 2002).

this area litigation would take place as a result of the issues related to the ‘legal segregation’ contained in EMIR. As was explained earlier, CCPs liability is limited because they rely on the information CMs give to comply with segregation and portability requirements. For instance, when CMs use Omnibus Client Account, they do not always provide information about the identity of their clients. Any delay in receiving information or inaccuracy in such information could jeopardize CCP’s ability to port positions and collateral<sup>138</sup>. The issue would arise if CM or clients claim that they suffered losses as a result of the delay. Litigation might also be caused by disagreements regarding the value of the assets provided as collateral by CMs. If those assets are lost or damaged when deposited in the custodian, or the custodian becomes insolvent, the responsibility of the CCP is restricted to having used appropriate skill, care and diligence when choosing the custodian.

The third type of interest is the public interest - that is financial stability. This reflects the systemic importance of CCPs in the OTCDM and the financial system as a whole. Regulatory authorities primarily preserve the public interest. Hence, the Bank of England received the mandate to regulate CCPs as means of making the OTCDM safer and to prevent it from becoming a source of systemic risk. However, the protection of the public interest also concerns the CCP as an entity. This research argues that although CCPs are private entities that, as any other financial institution, participate in the market to obtain profits, they have a fundamental role to contribute to market and financial stability along with the ‘co-regulatory functions’. The co-regulatory functions of CCPs are explained in the next section.

An example of the conflict of interest between CCPs, as individual financial firms, and the pursuit of the objective of financial stability are the restrictions, imposed by EMIR, to CCPs’ investment policies. Although the restrictions are in place the topic is currently under debate. As part of EMIR Review there is consultation on the restrictions on CCPs’ investments should be

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<sup>138</sup> CME Clearing Europe Ltd. Accounts Disclosure Document, 5 <https://www.cmegroup.com/europe/clearing-europe/membership/files/CMECE-Account-Disclosure-Documents.pdf> accessed 20<sup>th</sup> October 2015.

reassessed. In particular, the consultation considers three restrictions. The first restriction is the prohibition for CCPs to invest in Money Market Funds subject to certain conditions<sup>139</sup>. The CCPs position in this area is that similar transactions are authorised in the US. Therefore, it appears to be problematic to have this restriction when CCPs, collect and cash collateral from clients and CMs intraday throughout international markets in different time-zones, and therefore needs safe, liquid and reliable outlets to invest securely the late cash flows<sup>140</sup>.

The second restriction under consideration is to allow CCPs to treat regulated and highly creditworthy buy-side firms (e.g. pension funds and insurance undertakings) as potential investment counterparties. This would allow CCPs to repo cash balances with high quality liquid assets<sup>141</sup>. CCPs claim is that these investments would allow them to diversify their counterparty risk profile, while simultaneously provide additional liquidity in the repo market for the buy-side<sup>142</sup>.

The third restriction of EMIR is to prohibit the use of derivatives by CCPs for the purpose of hedging interest rate risk<sup>143</sup>. Under EMIR, CCPs invest the cash collateral received by clearing members into highly liquid financial instruments; a significant percentage is invested at fixed rate. CCPs ask EU regulators to consider that a prudent and regulated use of derivatives would allow CCPs to protect themselves from variations of interest rates in their investments. Moreover, CCPs recognise that, if allowed, the use of specific interest rate derivatives for hedging of investment risks should be prudent and compliant with Article 47(1) of EMIR, and subject to the Board and Risk Committee approval<sup>144</sup>.

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<sup>139</sup> The restriction is on Annex II of the ESMA RTS No 153/2013.

<sup>140</sup> LCH. Clearnet Response to the European Commission Consultation on EMIR. August 2015; LSEG Response to European Commission consultation on the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories.

<sup>141</sup> LCH. Clearnet Response to the European Commission Consultation on EMIR. August 2015.

<sup>142</sup> *ibid.*

<sup>143</sup> Annex II para. 2 of the ESMA RTS No 153/2013.

<sup>144</sup> *ibid.*

As might be anticipated, the restrictions on CCPs' investment policies were designed considering the need to control the type and levels of risks CCPs take when acting as investors. However, these measures can simultaneously be undermining the ability of CCPs to participate in the market and benefit from the products and services available, as other financial firms do. Therefore, the regulators challenge is to find the right balance between the protection of financial stability and the interest of CCPs as individual financial firms.

### **5.3 The need for CCPs' Governance Rules**

The BoE announced that, during the current year, will develop governance rules for CCPs<sup>145</sup>. As with other areas of the regime, it will follow EMIR and the PFMIs. Although such a regulatory framework provides guidance on how to design CCPs' governance rules, this section recommends some areas that the regulator should consider. The core argument is that rules of board and risk committees' membership are not enough to ensure the active participation of all stakeholders in the governance of the CCP.

The discussion of the conflicting interests that converge in the CCP was brought to this chapter to illustrate one area that can be ruled with governance rules. This research argues that a regime of governance might contribute to mitigate the influence that CMs might have over the CCP to benefit their own interests. This research calls regulators to design a regime of CCPs' governance that is not limited to rule the board and risk management committees' composition and voting rights as they are broadly defined in EMIR. The CCPs governance regime should instead seek to balance the convergent interests surrounding the functioning of the CCP. It has been criticized how board composition and voting rights and caps<sup>146</sup> are not effective mechanisms to

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<sup>145</sup> BoE's supervision of FMIs 2<sup>nd</sup> Annual Report 2015.

<sup>146</sup> 'Voting caps conflict with the basic corporate law premise that voting interests should be aligned with ownership interests'. Letter from Ernest Goodrich, Jr., Legal Department Managing Director Deutsche Bank AG, and Marcelo Riffaud, Legal Department Managing Dir., Deutsche Bank AG, to David A. Stawick, Secretary, CFTC, and Elizabeth M. Murphy, SEC 2-3 (Nov.8, 2010) <http://www.sec.gov/comments/s2-27-10/s72710-9.pdf> accessed 16<sup>th</sup> November 2015.

achieve efficiency in CCPs' corporate governance<sup>147</sup>. Instead, the governance rules should add several means to prevent, or at least reduce, the CMs' influence over the CCP aligning control and risk<sup>148</sup>.

Pursuing the balance of convergent interests in the CCP requires ensuring representation of all stakeholders in the governance structure. CPMI and IOSCO recommend that the governance arrangements of CCPs should be designed to fulfil public interest and promote objectives of owners and users<sup>149</sup>. This means that the BoE should firstly delimit who has the category of stakeholder<sup>150</sup> and how the composition of groups of stakeholders might vary. Such changes would need to be reflected in the board and committees' composition<sup>151</sup>.

In this regard, it is important to clarify that the issue that might be solved with corporate governance rules is the lack of independence of the CCP in respect to its CMs. As Griffin explains, this scenario is different to the traditional principal-agent conflict that corporate law tries to solve in the manager-shareholder relationship<sup>152</sup>. Here, the issue is the CMs might seek to gain profits by imposing excessive risk on the clearinghouse and in turn to increase (the) systemic risk<sup>153</sup>. Therefore, the design and implementation of CCPs' governance rules that balance the convergent interests within the CCP will protect stakeholders' rights, whilst at the same time shall clarify the parameters of accountability of board and risk committee members.

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<sup>147</sup> Griffith, 'Governing Systemic Risk: Towards a Governance Structure for Derivatives Clearinghouses' (n 6) 1209.

<sup>148</sup> Darrell Duffie and Haoxiang Zhu, 'Does a Central Clearing Counterparty Reduce Counterparty Risk?' (2011) *Rev. Asset Pricing Stud.*, Dec, 74.

<sup>149</sup> The second PFMI states: Principle 2: Governance. An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.'

<sup>150</sup> Nagy, D.M, 'Playing peekaboo with constitutional law: the PCAOB and its public/private status' (2005) 80 *Notre Dame Law Review* 3, 975.

<sup>151</sup> Group of Thirty, 'Global clearing and settlement: a plan of action' (2003) [http://www.group30.org/images/PDF/ReportPDFs/Global Clearing and Settlement Plan of Action.pdf](http://www.group30.org/images/PDF/ReportPDFs/Global_Clearing_and_Settlement_Plan_of_Action.pdf) accessed 13<sup>th</sup> November 2015.

<sup>152</sup> Adolf A. Berle and Gardiner C. Means, 'The Modern Corporation and Private Property (1991) Transaction Publishers, 1932.

<sup>153</sup> Mark Roe, 'Derivatives Clearinghouses Are No Magic Bullet' (*Wall St. J.* May 6 2010) <http://www.wsj.com/articles/SB10001424052748703871904575216251915383146> accessed 16<sup>th</sup> November 2015.



Similarly, the CCP governance regime should consider the role that CCPs have as ‘co-regulators’. In the UK, the BoE in 2013 recognised that CCPs would become the leading voice of the industry in the OTCDM<sup>154</sup>. Following this line of thought, CCPs act as ‘co-regulators’ by imposing market discipline. The contribution of CCPs is to promote high levels of disclosure and transparency about market participants and transactions. The level of discretion attributed to CCPs allows them to play a double role in helping regulators to achieve their objectives. Firstly, the role of CCPs as ‘regulated firms’, that comply with the authorisation and recognition requirements and the provision of clearing services. Secondly, the role of CCPs in imposing minimum requirements for CMs and their clients to participate in the market. The issue of rulebooks and corporate governance shows the scope of rule-making and enforcement attributed to CCPs. The ‘co-regulatory’ role of CCPs requires rules that solve the internal conflict of interests, so that the CCP is free from stakeholders’ influence. In this sense, some suggestions might include the limitation of ownership participation<sup>155</sup> and the imposition of ‘fit and proper’ standards to those involved in the governance of the CCP. Although these recommendations have been proposed to enhance investor protection<sup>156</sup>, it is argued that such standards also strengthen the robustness of the CCP’s functioning. To sum up, if the objective is to ensure that CCPs act as ‘co-regulators’ in line with the BoE objective, then it is first important to strengthen the internal structure and governance rules of CCPs.

#### **5.4 Innovation leading the unintended consequences of the regime**

The process of financial regulation faces the challenge of meeting market needs alongside public expectations. Regulators are usually compelled, particularly after periods of crisis, to react and control the sources of systemic risk. History and the hypothetical scenarios that are somehow foreseeable illustrate the task for regulators when they design the regime. The downside of

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<sup>154</sup> BoE’s approach to FMIs’ Supervision, 2013.

<sup>155</sup> Examples of ownership restrictions are set out in IOSCO, Technical committee (2006, table 2). 16 in Lee, *Running the World’s Markets: The Governance of Financial Infrastructure*. (n 115).

<sup>156</sup> *ibid* 342.

this process is, however, that almost always post-crisis regulation is exclusively focused on the most prominent areas of concern - the risks that are already crystallised, whilst at the same time it overlooks less probable risk. Hence, the use of approaches, as the risk-based regulation, facilitates that the regulator falls in this circle where several types of risks i.e., innovations risks are ignored, and only those risks regulators perceive to be more prominent are regulated.

This fracture of the UK regime of CCPs in the OTCDM is concerning the ‘double-role’ the BoE has when regulating and supervising CCPs, OTCDM and UK financial stability. The BoE is not only the prudential regulator of the CCP, but also the guardian of stability of the UK financial system. This double-role of the BoE should be reflected in a coherent regulatory framework. Hence, the regime of CCPs in the OTCDM should contribute not only to the safety and soundness of CCPs and in turn of the OTCDM, but should be coherent with the objective of financial stability. This means that the Bank is expected to oversee the potential risks that the new regulation of CCPs might bring to the stability of the system, attending to the persistent interconnections between CCPs, OTCDM participants and other sectors of the financial system.

#### 5.4.1 Innovation concerning collateral requirements

Certainly, it cannot be denied that any type of regulation comes with a wave of innovation<sup>157</sup> and creative compliance. As was explained in the first chapter, creative compliance implies ‘using the law to escape legal control without actually violating legal rules’<sup>158</sup>. It is a reaction from regulated firms to the content of certain regulation. In the particular case of the OTCDM and the

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<sup>157</sup> Edward J. Kane, ‘ Good Intention and Unintended Evil: The Case Selective Credit Allocation’, (Everett. Reese Recognition Lectures) <https://fraser.stlouisfed.org/docs/meltzer/kangoo77.pdf> accessed 15<sup>th</sup> November 2015.

<sup>158</sup> McBarnet, ‘Law and Capital: The Role of Legal Form and Legal Actors’ (1984) 12 Int J Sociology of Law 233; McBarnet, ‘Law, Policy and Legal Avoidance’ (1988) J Law & Society 1 13; McBarnet, ‘It’s Not What You Do But The Way That You Do It: Tax Evasion, Tax Avoidance and the Boundaries of Deviance’ in Downes (ed), *Unraveling Criminal Justice* (London: Macmillan, 1991); McBarnet and Whelan, ‘Beyond Control: Law Management and Corporate Governance’ in McCahery, Picciotto and Scott (eds), *Corporate Control and Accountability* (1992) in Doreen McBarnet and Christopher Whelan, ‘The Elusive Spirit of the Law: Formalism and the Struggle for Legal Control’ (54 The Modern Law Review 6, Law and Accountancy (Nov., 1991) 848.

regulation incentivizing the use of CCPs, one of the ways in which innovation takes form is derived from the collateral and margin requirements imposed on CMs. Parties involved in OTC derivatives contracts are dealing with the potential default of their counterparties. In this sense, clearing - the function by which credit risk is managed - can be carried out centrally, by Central Counterparties CCPs or bilaterally. Before the GFC, the vast majority of the contracts were cleared bilaterally with an inadequate collateralisation, prompting instability to the market and being more vulnerable to the concretion of systemic risk. As a result, regulators decided to promote the use of Central Counterparties, procuring the enhancement and protection of financial market stability.

Collateral and margin requirements are regulated in chapter 3 of EMIR. It rules over exposure management, margin requirements, default funds, liquidity risk controls, the so-called default waterfall, collateral requirements, investment policy, default procedures, reviews of models, stress testing and back testing settlement. Regarding the margin requirements CCPs shall impose, call and collect margins from their CMs and, exceptionally, from CCPs with which it has interoperability arrangements<sup>159</sup>. The function of margins is the protection against counterparty credit risk – that is why the required margins shall be sufficient to cover potential exposures that the CCP estimates will occur until the liquidation of the relevant positions. This means that margins should be collected and remain during the entire life of each transaction. Additionally, margins shall be enough to ‘cover losses that result from at least 99% of the exposures movements’<sup>160</sup>. Regular monitoring of margins is carried out by the CCP, which in turn shall collateralise all of its exposures with all its clearing members.

Furthermore, better protection against exposures and risks is achieved through the design, supervision, and regular review<sup>161</sup> of models and parameters to measure initial and variation margins. The aim is that margin models capture the risk characteristics of the products subject to clearing and the market

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<sup>159</sup> EMIR recognises the multiple CCPs that will be providing services in the European market by regulating the Interoperability arrangements that will facilitate the joint participation of these intermediaries. The interoperability arrangements will ensure non-discriminatory access to the data and the settlement system. Art 51 EMIR.

<sup>160</sup> Art 41 EMIR.

<sup>161</sup> Art 49 EMIR.

liquidity, as well as the possible variation over the duration of the transaction<sup>162</sup>. The specificities of margins' calculation, including the specification of the appropriate percentage and time horizons for the liquidation period, is done according to the Regulatory Technical Standards (RTS), by ESMA consulting EBA and the ESCB.

Besides the margin requirements, EMIR also regulates the Default Fund that will cover the losses that exceed the losses covered by margin requirements. As explained earlier, CCPs use the fund only when margins, both initial and variation, are not sufficient to cover the losses of one or more clearing members. The risk- management rules require CCPs to establish a minimum amount below which the size of the default fund is not to fall under any circumstances<sup>163</sup>. The fund receives resources of single clearing members and the amount of the contribution shall be proportional to the exposures of each clearing member. The design of stress tests allow CCPs to pre-empt scenarios of extreme market conditions<sup>164</sup> that might threaten the continuity of clearing services.

Moreover, EMIR includes a third level of protection as 'other financial resources'. These resources will be used by the CCP to cover potential losses that exceed the losses to be covered by the margins and the default fund. The requirement is that these financial resources 'shall include dedicated resources, shall be freely available to the CCP, and shall not be used to meet the capital requirement of Article 16'<sup>165</sup>. The orderly use of margin, default funds and other financial resources is regulated as the default waterfall<sup>166</sup>. These are the instructions to be followed by the CCP when one or more clearing member defaults.

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<sup>162</sup> Art 41 EMIR.

<sup>163</sup> Art 42 (1) EMIR.

<sup>164</sup> Art 42 (3) EMIR.

<sup>165</sup> Art 43 EMIR.

<sup>166</sup> Art 45 EMIR.

Regarding the liquidity risk, the objective of EMIR is to ensure CCPs at all times have access to adequate liquidity to provide the clearing services. To that end, the CCP is expected to obtain credit lines or similar arrangements to cover their liquidity needs when necessary.

In order to cover the initial and on-going exposures to its clearing members, ‘a CCP shall accept highly liquid collateral with minimal credit and market risk’<sup>167</sup>. The terms and the quality of the collateral depend on the type of counterparty (financial or non-financial counterparty), and the conditions included in the RTS<sup>168</sup>.

This brief description of the margin requirements in EMIR is brought to this section to illustrate the relevance they have for CMs to be able to trade in the OTCDM and for the risk management of the CCP. The current regime greatly relies on compliance with these prudential rules to ensure the safety and soundness of CCPs and, in turn, the stability of the OTCDM. Moreover, the system of margins and default fund contributions is implemented to tackle the underlying incentive problems of CMs<sup>169</sup>. As a result, CMs are in need to use high liquid assets<sup>170</sup> to meet collateral and margin requirements.

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<sup>167</sup> Art 46 EMIR.

<sup>168</sup> RTS propose setting the thresholds to limit the operational burden and a threshold for managing the liquidity impact associated with initial margin requirements.

<sup>169</sup> ‘Regarding the incentive problems: since the CCP insures its members against credit risk, they could become imprudent and fail to monitor the credit risk of their counterparties. [For this reason] The CCP should limit the amount of insurance it provides to CMs’. Biais, Heider and Hoerova, ‘Incentive compatible centralized clearing’ in OTC Derivatives: New Rules, new actors, new risks, (n 111).

<sup>170</sup> This type of collateral is ineligible for rehypothecation. ‘Rehypothecation is widely used by prime brokers involved in the collateralisation of derivatives transactions with hedge funds. It is a practice introduced into Europe by US firms. The concept was alien to English law but formally introduced in 2003 by the adoption of the EU Financial Collateral Directive. Rehypothecation is regarded by prime brokers as essential to the economics of their business. In return for rights of rehypothecation, they can offer clients cheaper funding’. International Capital Markets Association <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/frequently-asked-questions-on-repo/10-what-is-rehypothecation-of-collateral/> accessed 26<sup>th</sup> October 2015.

In this regard, questions concerning the substantial legal issues arising from collateralization have already been addressed in the literature<sup>171</sup>. This research goes beyond and calls the attention on the potential dangers coming from the innovative financial techniques market participants will use to meet the high quality collateral<sup>172</sup>. These are some unintended consequences of the regime with profound systemic implications. In particular, how CMs are likely to use a practice known as ‘collateral transformation’ or ‘upgrading collateral’<sup>173</sup>. When a market participant wants to trade in the OTCDM and is interested in benefiting from central clearing, he/she will be subject to the margin and collateral regime described before. In the rather common scenario that the market participant does not have assets that comply with the required high quality collateral, the alternative is to go to other market and gain access to high quality assets. One option is to enter into a repo transaction that allows the transformation of this collateral into ‘acceptable assets’ or ‘acceptable collateral’. The counterparty of the repo transaction - a dealer or bank - might be a direct counterparty or intermediary for such a contract. Until this stage, the rehypothecation is allowed for some of the lower quality assets. This means that the consequences of the rehypothecation are still present, though not directly affecting the collateral transferred to the CCP.

Although collateral transformation benefits market participants, the counterparty in the repo transaction and the CCP that is receiving high quality assets, the shortcoming is the systemic impact it might have. The sum of the imposition of central clearing, the concomitant collateral requirements, and the resulting innovation of collateral transformation prompts the transmission of credit risk from the OTCDM to the repo market. The credit risk initially originated in the OTCDM is now shared between the CCPs and the

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<sup>171</sup> Some works discussing the impact of collateralization in the CCPs. Joanne Braithwaite, ‘Private Law and the Public Sector’s Central Counterparty Prescription for the Derivatives Markets (March 21, 2011) LSE Legal Studies Working Paper No. 2/2011 <http://ssrn.com/abstract=1791740> accessed 17<sup>th</sup> October 2015.

<sup>172</sup> Isobel Wright and Nora Bullock ‘Key interactions between EMIR and AIFMD’ (2014) 9 JIBFL 589, 590.

<sup>173</sup> Paula Tkac, ‘Reducing Systemic Risk of Merely Transforming It?’ (Federal Reserve Bank of Atlanta, July 2013) <https://www.frbatlanta.org/cenfig/publications/notesfromthevault/1307.cfm> accessed 5<sup>th</sup> October 2015.

counterparties of the repo contracts. The high level of interconnection between the OTCDM and other markets remain as a channel of communication of financial distress.

To illustrate this point further, if before the GFC the concern was that the failure of OTCDM market participants could result in the failure of the OTCDM and its systemic consequences, e.g. one of the causes that contributed to the near-failure of AIG were collateral calls. The use of ‘collateral transformation’, which replaces the collateral call, concerns with a run in the repo market. If suppliers of high quality collateral retreat from the market, this might force the liquidation of derivative positions and/or lower-quality collateral assets. In consequence, the risk of potential firesales is increased, which in turn might substantially reduce the asset value.

#### **5.4.2 Compression is a form of innovation**

The ‘innovative’ use of compression diminishes the effectiveness of CCPs as managers of counterparty credit risk in the OTCDM, and its role in front of systemic risk. This is because the use of compression, a service increasingly being offered by CCPs, might reduce the capital that a bank, as clearing member (bank/CM), must hold against its default fund contribution to the CCP<sup>174</sup>.

The role of CCPs as efficient managers of counterparty credit risk has been widely accepted. The efficiency of CCPs is attributed to the implementation of several prudential mechanisms that ensure the safety and soundness of the CCP. In this discourse, the robustness of the CCP and the management of clearing members’ defaults have been central. Indeed, a regulatory priority, in Europe and in the UK, is to ensure that CCPs have enough resources available to mutualise losses in the event of a CM’s default. However, the objectives of the CCPs’ regime might find a shortcoming when integrated with other regimes and innovative practices. In particular, the consequences that the innovative use of

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<sup>174</sup> Thomas Murray Data Services, ‘CCP in Focus- Compression and its effect on bank capital requirements and leverage ratios’ (19<sup>th</sup> May, 2014) <http://ds.thomasmurray.com/opinion/ccp-focus-compression-and-its-effect-bank-capital-requirements-and-leverage-ratios> accessed 28<sup>th</sup> January 2016.

compression by banks/CMs might bring to the management of a CM's default. This is how the Basel III leverage ratio has increased the incentives for compression, and how the impact of compression on capital requirements for banks' exposures to CCPs might imply a reduction of the amount of collateral available in the event of a CM's default.

In order to develop the argument, this section is divided into three parts. It first explains the process of compression, objectives and innovative uses following the regulatory requirements of EMIR. It then explores the role of two prudential tools included in Basel III: leverage ratio and capital requirements for banks' exposures to CCPs. Finally, it highlights the benefits that compression brings to banks/CMs and CCPs. It addresses how innovative compression affects the calculation of both leverage ratio and capital requirements, and diminishes the effectiveness of CCPs as managers of counterparty credit risk in the OTCDM.

#### **5.4.2.1 Taxonomy of Compression**

The OTCDM is led by innovation in different ways. Innovation might take form through the use of new mechanisms and processes, or by the novel use of well-known practices. The use of compression in the context of the clearing relationship between banks/CMs and CCPs falls into the second category. It is also an example of the uncertainties that are 'unknown but knowable', as was explained in the first chapter. In the case of compression, what is unknown is not the process itself, but the use of it. To clarify this point further, compression is not a new practice; it has been used as tool to enhance operational efficiencies and in the derivatives market it emerged as a way for derivatives users to manage operational risks in 2003, with the launch of TriOptima's triReduce service<sup>175</sup>. However, as a result of the new capital and leverage ratio requirements of Basel III<sup>176</sup>, compression is now being used to reduce the size of the bank's balance

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<sup>175</sup> TriOptima, 'TriReduce key benefits optimizing leverage ratios, reducing risk' <http://www.trioptima.com/services/triReduce/benefits.html> accessed 27<sup>th</sup> January 2016.

<sup>176</sup> BIS, 'International Regulatory Framework for Banks: Basel III'. <http://www.bis.org/bcbs/basel3.htm> accessed 28<sup>th</sup> January 2016.



and derivatives portfolio<sup>177</sup>.

In the context of the OTCDM, compression is a process by which OTC derivatives transactions in the standardised same contract offset, or partially offset, and as a result it might be possible for the client and/or CM to net these trades<sup>178</sup>. One of the objectives of compression is to reduce the notional outstanding amount by creating a new replacement contract that removes the offsetting exposure, without affecting the market risk of the portfolio<sup>179</sup>. ESMA<sup>180</sup> explains that the process of compression with a CCP would allow counterparties to reduce the notional value of contracts in their books against that CCP<sup>181</sup>.

This service is used in cleared and uncleared derivatives and is increasingly being offered by CCPs<sup>182</sup>. Indeed, EMIR and Dodd-Frank Act require the use of compression. The former for non-clear derivatives and the latter for major swaps participants. Although compression has been offered in the derivatives market for more than a decade, it had a downside that discouraged participants from using it<sup>183</sup>. This was the ‘linking of trade records’ that required both parties to agree for a trade to be compressed. This changed in 2014, with the

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<sup>177</sup> ISDA, ‘The Impact of Compression on the Interest Rate Derivatives Market’ (ISDA Research Note, July 2015).

<sup>178</sup> Murray, ‘CCP in Focus- Compression and its effect on bank capital requirements and leverage ratios’ (n 174).

<sup>179</sup> ‘Activity in global OTC derivatives markets fell in the first half of 2015. The notional amount of outstanding contracts declined from \$629 trillion at end of December 2014 to \$553 trillion at end of June 2015. Even after adjustment for the effect of exchange rate movements on positions denominated in currencies other than the US dollar, notional amounts were still down by about 10%. **Trade compression to eliminate redundant contracts was the major driver of the decline**’ BIS, ‘Statistical release: OTC derivatives statistics at end-June 2015 Monetary and Economic Department (November 2015) [http://www.bis.org/publ/otc\\_hy1511.pdf](http://www.bis.org/publ/otc_hy1511.pdf) accessed 28th January 2016.

<sup>180</sup> ESMA, ‘Final Report ESMA’s Technical Advice to the Commission on MiFID II and MiFIR’ (Final Report ESMA/2014/1569, 19<sup>th</sup> November 2014) [https://www.esma.europa.eu/sites/default/files/library/2015/11/2014-1569\\_final\\_report\\_-\\_esmas\\_technical\\_advice\\_to\\_the\\_commission\\_on\\_mifid\\_ii\\_and\\_mifir.pdf](https://www.esma.europa.eu/sites/default/files/library/2015/11/2014-1569_final_report_-_esmas_technical_advice_to_the_commission_on_mifid_ii_and_mifir.pdf) accessed 28<sup>th</sup> January 2016

<sup>181</sup> European Union Emissions Trading Scheme, ‘Legal definition, economic sense and significance of portfolio compression’ (2015) <http://www.emissions-euets.com/risk-mitigation-techniques-emir/portfolio-compression-emir> accessed 28th January 2016.

<sup>182</sup> LCH. Clearnet and CME Clearing Ltd.

<sup>183</sup> ISDA, ‘The Impact of Compression on the Interest Rate Derivatives Market’ July 2015 (n 177).

‘unlinking’ of trade records at LCH. Clearnet<sup>184</sup>. Now each counterparty can compress the transactions that it has cleared through the CCP, without the involvement of its original counterparty<sup>185</sup>. This change prepared the market to the introduction of ‘blended rate compression’<sup>186</sup>. This is the latest form of compression available for OTC derivatives. By using blended rate compression, participants can compress transactions with different interest rates but the same remaining cash flow dates<sup>187</sup>. The use of this type of compression will significantly increase the eligible trades<sup>188</sup>.

EMIR contemplates the use of compression, for financial counterparties and non-financial counterparties with 500 or more OTC derivative contracts outstanding with a counterparty, which are not cleared through CCPs. They are required, at least twice a year, to analyse the possibility and/or to conduct portfolio compression in order to reduce their counterparty credit risk. Moreover, counterparties must be able to explain if they have concluded it is not appropriate. Thus, the rule on EMIR is not a mandate to conduct portfolio compression and the reason is that it is not always in the interest of the counterparties<sup>189</sup>. Although EMIR includes compression as a risk mitigation tool for un-cleared derivatives, it is possible that counterparties of centrally cleared derivatives use this mechanism. The voluntary character of compression allows cleared and un-cleared derivatives participants to decide how to use different methods of compression. According to the number of parts compressing their trades with each other, the method of compression is bilateral or multilateral. In

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<sup>184</sup> Risk, ‘LCH. Clearnet, Clearing House of the Year’ (Risk.Net News, January 2015) <http://www.lchclearnet.com/documents/731485/762444/Risk+Awards+PDF.pdf/> accessed 27<sup>th</sup> January 2016.

<sup>185</sup> *ibid.*

<sup>186</sup> ISDA, ‘The Impact of Compression on the Interest Rate Derivatives Market’ July 2015 ( n 177).

<sup>187</sup> LCH. Clearnet, ‘LCH.Clearnet's SwapClear Launches New Blended Rate Compression Service’ (LCH. Clearnet News, 17th September, 2014) <http://www.lchclearnet.com/news-events/news/swapclear-launches-new-blended-rate> accessed 28<sup>th</sup> January 2016.

<sup>188</sup> *ibid.*

<sup>189</sup> ‘Portfolio compression may carry some disadvantages specific to a party's legal, tax, accounting and/or operational status and may therefore not be appropriate in all circumstances’. IOSCO, ‘Risk Mitigation Standards for Non-centrally Cleared OTC Derivatives’ (IOSCO, FR01/2015, 28<sup>th</sup> January 2015) <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD469.pdf> accessed 28<sup>th</sup> January 2016.

multilateral compression, the main benefit is that it ‘enables a bigger pool of positions to be offset, resulting in higher compression ratios’<sup>190</sup>.

The claimed benefits of compression include a reduction in gross notional value of outstanding trades without affecting market risks, a reduction in operational risks and a possible reduction of counterparty credit risk in bilaterally derivatives, as well as a simplified default management process. The simplification and reduction of trades and processes is the main argument in favour of compression, as it is perceived as a mechanism for controlling systemic risk. However, the real impact that compression has in the reduction of the OTCDM size is debatable. This is because even though portfolio compression reduces the size of the market, the increase in the use of central clearing through CCPs has exactly the opposite effect. Each bilateral transaction is divided into two new transactions when they are cleared through a CCP, which in turn doubles the notional amount<sup>191</sup>.

#### **5.4.2.2 Basel III: leverage ratio and capital requirements for Bank exposures to Central Counterparties**

In order to understand how compression is linked to the leverage ratio and capital requirements for banks’ exposures to CCPs, this section explores the rationale of the leverage ratio imposed by the Basel Committee on Banking Supervision (BCBS)<sup>192</sup> in Basel III section 227.

##### **5.4.2.2.1 Leverage Ratio**

Leverage is defined as the practice that ‘allows a financial institution to increase the potential gains or losses on a position or investment beyond what

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<sup>190</sup> European Union Emissions Trading Scheme, ‘Legal definition, economic sense and significance of portfolio compression’ (2015) ( n 181).

<sup>191</sup> *ibid.*

<sup>192</sup> ‘The Basel-III framework included a more restrictive definition of Tier I capital, pro-cyclical capital, additional capital for the so-called Global Systemically Important Banks (G-SIBs) and a minimum simple leverage ratio.’ Karim Pakravan, ‘Bank capital: the case against Basel’ (2014) 22 JFRC 3, 208–218.

would be possible through a direct investment of its own funds'<sup>193</sup>. The excessive leverage by banks was identified as one of the causes that contributed to the GFC<sup>194</sup>. As a result, the G 20 leaders<sup>195</sup> and the Financial Stability Board (FSB)<sup>196</sup> proposed the introduction of a leverage ratio, as an additional prudential tool, to complement capital adequacy requirements. Despite the multiple critiques<sup>197</sup> to the leverage ratio of Basel III<sup>198</sup>, it will be completely introduced in pillar I before 1 January 2018.

Leverage ratio is designed to offer a non-risk based ratio that can be used as a 'credible' supplementary measure to the risk-based capital requirements<sup>199</sup>. The rationale behind the adoption of leverage ratio is to provide supervisors with an additional mechanism to validate the bank's risk assessments<sup>200</sup>. As a result, regulators would have a better understanding of banks' risks<sup>201</sup> and be able to

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<sup>193</sup> International Financial Corporation -World Bank Group, 'The New Leverage Ratio' (Crisis Response: Public Policy for the Private Sector, Note Number 11, December 2009) 1 <http://www.worldbank.org/financialcrisis/pdf/levrage-ratio-web.pdf> accessed 28<sup>th</sup> January 2016.

<sup>194</sup> Adrian Blundell-Wignall and Paul Atkinson, 'The subprime crisis: Causal distortions and regulatory reform.' (Lessons from the Financial Turmoil of 2007 and 2008, 2008) <http://www.rba.gov.au/publications/confs/2008/pdf/blundell-wignall-atkinson.pdf> accessed 28<sup>th</sup> January 2016.

<sup>195</sup> G-20 Declaration of April 2009 on Strengthening the Financial System states that 'risk- based capital requirements should be supplemented with a simple, transparent, non-risk based measure which is internationally comparable, properly takes into account off-balance sheet exposures, and can help contain the build-up of leverage in the banking system.' G20, 'London Summit-Leaders' Statement' (2<sup>nd</sup> April 2009) [https://www.imf.org/external/np/sec/pr/2009/pdf/g20\\_040209.pdf](https://www.imf.org/external/np/sec/pr/2009/pdf/g20_040209.pdf) accessed 28<sup>th</sup> January 2016.

<sup>196</sup> The Financial Stability Board report on procyclicality (FSB 2009) 2 recommends that 'the Basel Committee should supplement the risk-based capital requirement with a simple, non-risk based measure to help contain the build-up of leverage in the banking system and put a floor under the Basel II Framework.' FSB, 'Recommendations for Addressing Procyclicality in the Financial System' (2<sup>nd</sup> April 2009) <http://www.fsb.org/2009/04/report-of-the-financial-stability-forum-on-addressing-procyclicality-in-the-financial-system/> accessed 28<sup>th</sup> January 2016.

<sup>197</sup> Adrian Blundell-Wignall and Paul Atkinson, 'Thinking beyond Basel III: Necessary Solutions for Capital and Liquidity' (2010) OECD Journal: Financial Market Trends 1.

<sup>198</sup> Bill Allen, Ka Kei Chan, Alistair Milne and Steve Thomas, 'Basel III: Is the cure worse than the disease?' (2012) 25 International Review of Financial Analysis, 159; Peter Miu, Bogie Ozdemir, and Michael Giesinger, 'Can Basel III Work? Examining the New Capital Stability Rules by the Basel Committee: A Theoretical and Empirical Study of Capital Buffers' (February 20, 2010) <http://ssrn.com/abstract=1556446> accessed 28<sup>th</sup> January 2016.

<sup>199</sup> Murray, 'CCP in Focus- Compression and its effect on bank capital requirements and leverage ratios' (n 174).

<sup>200</sup> Jurg M. Blum, 'Why 'Basel II' may need a leverage ratio restriction' (2008) 32 J. Bank. Financ., 1699.

<sup>201</sup> Adrian Blundell-Wignall, Paul Atkinson and Caroline Roulet, 'Bank business models and the Basel system: Complexity and interconnectedness' (2014) OECD Journal: Financial Market Trends, Vol. 2013/2, 2.

restrict the leverage practice within the banking sector<sup>202</sup>. Moreover, it is said to contribute to avoid the destabilising deleveraging process that can damage the wider financial system<sup>203</sup>.

The formula to calculate the leverage ratio is:

$$\text{Leverage Ratio} = \text{Tier 1 Capital} / \text{Total Exposure}$$

The total exposure amount includes on and off-balance sheet assets, including derivatives. The method used to measure the bank's exposure to a CCP is the Current Exposure Method (CEM)<sup>204</sup>. The objective of the CEM is 'to capture the current replacement costs by marking contracts to market and the adding a factor (add-on)'<sup>205</sup>. For OTC derivatives, the add-on factor is an adjusted sum called Potential Future Exposure (PFE)<sup>206</sup>. Although the BCBS announced the replacement of the CEM with the standardised Approach for measuring derivatives exposure (SA-CCR)<sup>207</sup>, the PFE remains as one factor in the SA-CCR formula. In both methods, (CEM and SA-CCR) the PFE is calculated by multiplying the effective notional amount of the OTC derivative contract by an appropriate conversion factor<sup>208</sup>. The add-on is developed for each

<sup>202</sup> Thomas Curry, 'Statement on Basel II: Capital Changes in the US Banking System and the Results of the Impact Study', before the Subcommittee on Financial Institutions and Consumer Credit and Subcommittee on Domestic and International Monetary Policy, Trade, and Technology of the Committee on Financial Services, U.S. House of Representatives Hearing, (May 11 2005) in Heidi Mandanis Schooner and Michael W. Taylor, *Global Bank Regulation: Principles and policies* (Academic Press, 2009) 159.

<sup>203</sup> Murray, 'CCP in Focus- Compression and its effect on bank capital requirements and leverage ratios' (n 174).

<sup>204</sup> 'Basel III allows 3 methods in estimating the exposure of a bank to any counterparty: the Internal Model Method (IMM); the Standardised Method (SM) and the Current Exposure Method (CEM). However, Basel III only allows the CEM when estimating a bank's exposure to a CCP'. Antonie Kotzé, 'Current Exposure Method for CCP's under Basel III' (A discussion document, Johannesburg Stock Exchange, Equity Derivatives May, 2012) <http://www.quantonline.co.za/documents/Safcom%20Current%20Exposure%20Method.pdf> accessed 28<sup>th</sup> January 2016; See also Antonie Kotzé and Paul du Preez, 'Current Exposure Method for CCP's under Basel III' (2013) 3 Risk governance & control: financial markets & institutions 2, 7.

<sup>205</sup> Murray, 'CCP in Focus- Compression and its effect on bank capital requirements and leverage ratios' (n 174).

<sup>206</sup> BCBS, 'The standardised approach for measuring counterparty credit risk exposures' (BIS, March 2014 (rev. April 2014) <http://www.bis.org/publ/bcbs279.pdf> accessed 28<sup>th</sup> January 2016.

<sup>207</sup> Standardised Approach (SA-CCR) for measuring exposure at default (EAD) for counterparty credit risk (CCR).

<sup>208</sup> BCBS, 'The standardised approach for measuring counterparty credit risk exposures' (n 206); See Andrew S. Fei, 'Overview of Basel Committee's Standardized Approach for Measuring

asset class - similar to the five asset classes used for the CEM, i.e. interest rate, foreign exchange, credit, equity and commodity<sup>209</sup>.

This brief explanation of the formula is included in this section to illustrate the existence of a relationship between the value of leverage ratio and total exposure. This relationship emphasises the effect that compression practices have in the amount of total exposure.

#### **5.4.2.2.2 Capital requirements for Bank exposures to CCPs**

The objective of Basel III by introducing the capital requirements for bank exposures to CCPs, called ‘Qualifying CCPs’<sup>210</sup>, is to capture the risks CCPs pose to banks/CMs<sup>211</sup>. Accordingly, banks must capitalise their trade exposures as well as their default fund contribution. In order to calculate a bank/CM exposure to the default fund and the amount of capital a bank/CM must hold, one of the methods (Method 1) requires the calculation of a CCP’s hypothetical capital requirement ( $K_{ccp}$ )<sup>212</sup>. One of the factors needed to calculate the  $K_{ccp}$  is Exposure before Risk Mitigates (EBRM), which is calculated using the method CEM<sup>213</sup>.

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Derivatives Exposure’ (SA-CCR, formerly known as NIMM) (March 31, 2014) <http://blog.usbase13.com/basel-committee-standardized-approach-for-calculating-counterparty-credit-risk-exposure-nimm-sa-ccr/> accessed 28<sup>th</sup> January 2016.

<sup>209</sup> BCBS, ‘The standardised approach for measuring counterparty credit risk exposures’ (n 206).

<sup>210</sup> Criticising the contradictions between Basel III and EMIR and CRD IV: ‘Basel III is written into EMIR (European Market Infrastructure Regulation) via CRD IV (Capital Requirements Directive IV). CRD IV defines a [Qualifying] QCCP as one that has been authorised under Article 14, or is recognised under Article 25, of EMIR. Neither of these articles, or indeed any other part of EMIR, makes any mention of a QCCP or the relevant requirements to becoming one.’ Thomas Murray, ‘CCP in Focus - When is a QCCP not really a QCCP?’ (Thomas Murray Data Services, Monday 17<sup>th</sup> February, 2014) <http://ds.thomasmurray.com/opinion/ccp-focus-when-qccp-not-really-qccp> accessed 28<sup>th</sup> January 2016.

<sup>211</sup> BCSC, ‘Capital requirements for bank exposures to central counterparties’ (BIS, April 2014) <http://www.bis.org/publ/bcbs282.htm> accessed 28<sup>th</sup> January 2016.

<sup>212</sup> *ibid.*

<sup>213</sup> Murray, ‘CCP in Focus- Compression and its effect on bank capital requirements and leverage ratios’ (n 174).

#### 5.4.2.3 Compression influences leverage ratio and capital requirements

In order to understand how compression is related and affects leverage ratio and capital requirements for a bank's exposures to CCPs, it is important to emphasise the objective of compression. This is the reduction of gross notional amounts without affecting market risk. Gross notional amount<sup>214</sup> is one of the factors of the CEM method, which is used to calculate leverage ratio and capital requirements. This means that if there is a reduction in gross notional amounts, there is also a reduction in total exposures. As a result, there is a reduction of the capital a bank/CM is obliged to hold against its default fund contribution to the CCP. Similarly, the reduction in the total exposure will impact the calculation of the leverage ratio. Therefore, banks/CMs will be benefited from using compression services.

As might be anticipated, the successful experience of LCH. Clearnet Ltd shows that CCPs can gain competitive advantage over other CCPs operating in the market when they offer innovative compression services. This is because banks/CMs are in constant search of solutions to optimise collateral<sup>215</sup>.

Nonetheless, the use of compression in the OTCDM brings risks. The risk that in the event of CMs' default, banks/CMs will have less collateral available to close out their positions. This scenario directly increases risk and affects the management of CMs' default. The actual removal of collateral from CCPs might become a source of systemic risk<sup>216</sup>. This is because CCPs are safe and sound only when they have sufficient resources and risk management mechanisms to absorb losses. Thus, the use of compression is proven to be an innovation in the form of creative compliance. This is because while regulators seek to increase the capital requirements in the OTCDM, banks/CMs introduce a

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<sup>214</sup> 'The notional amount of outstanding OTC derivatives contracts determines contractual payments and is an indicator of activity. Nominal or notional amounts outstanding are defined as the gross nominal or notional value of all deals concluded and not yet settled on the reporting date.' BIS, 'OTC derivatives statistics at end-June 2014' BIS, Monetary and Economic Department, Statistical Release (November 2014) [http://www.bis.org/publ/otc\\_hy1504.htm](http://www.bis.org/publ/otc_hy1504.htm) accessed 28<sup>th</sup> January 2016.

<sup>215</sup> Murray, 'CCP in Focus- Compression and its effect on bank capital requirements and leverage ratios' (n 174).

<sup>216</sup> *ibid.*

solution to mitigate this increase and as such affect the achievement of regulators' objectives. By using compression, in the way explained above, CMs are 'using the law to escape legal control without actually violating legal rules'<sup>217</sup>.

#### 5.4.2.4 A way forward

The foregoing potential issues are forms of innovation, and examples of the issues that interconnectedness between SIFIs (Banks and CCPs) brings to financial stability. The Bank of England (at the time of writing) has not considered the issues and, therefore, there is no solution in the current regime. However, the Financial Policy Committee (FPC) is conducting a full review of the OTCDM in 2016<sup>218</sup>. The review is the opportunity to identify not only issues concerning the regime of CCPs, but also how the interconnectedness of CCPs with other systemically important financial institutions, such as banks, might negatively affect the objective of financial stability.

The role of the FPC in the area of interconnectedness is of central importance. It is directly linked to the FPC's primary aim to contribute to achieving the BoE's stability objective. The responsibility of the FPC is to identify, monitor, and take action to remove or reduce systemic risks<sup>219</sup>. One of the sources of systemic risk is attributable to 'structural features of financial markets, such as connections between financial institutions'<sup>220</sup>. Hence, the balance sheet interconnectedness is one of the core factors that the FPC uses to monitor systemic risks<sup>221</sup>. In the UK, prudential regulators have collected since

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<sup>217</sup> McBarnet, 'Law and Capital: The Role of Legal Form and Legal Actors' (n 158) 233.

<sup>218</sup> Bank of England, 'Financial Stability Report 2015' (Issue No 37, July 2015) <http://www.bankofengland.co.uk/publications/Pages/fsr/2015/jul.aspx> accessed 28<sup>th</sup> January 2016.

<sup>219</sup> Paul Tucker and Simon Hall and Aashish Pattani, 'Macroprudential policy at the Bank of England' (Bank of England, Quarterly Bulletin 2013 Q3) <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2013/qb130301.pdf> accessed 28<sup>th</sup> January 2016.

<sup>220</sup> Bank of England, 'The Financial Policy Committee's Review on the leverage ratio' (October 2014) 8 [http://www.bankofengland.co.uk/financialstability/Documents/fpc/fs\\_lrr.pdf](http://www.bankofengland.co.uk/financialstability/Documents/fpc/fs_lrr.pdf) accessed 28<sup>th</sup> January 2016.

<sup>221</sup> Zijun Liu, Stephanie Quiet and Benedict Roth, 'Banking sector interconnectedness: what is it, how can we measure it and why does it matter?' (Bank of England, Quarterly Bulletin 2015 Q2)



2011 the information on exposures of UK banks to other financial institutions (e.g. CCPs). Moreover, regulators have tightened limits on direct exposures between systemically important financial institutions, and the level of interconnectedness is a factor to determine whether an institution is a G-SIB.

As the Bank of England explains, the analysis of the interconnectedness between Banks and CCPs includes reforms to both markets<sup>222</sup>. On the one hand, the banking system has adopted the ring-fencing<sup>223</sup> of banks and recovery and resolution plans. On the other hand, the principal policy in the area of CCPs has been the introduction of recovery and resolution tools for CCPs<sup>224</sup>. However, as was explained in chapter 4, the resolution regime of CCPs is still in the process to be built. Thus, the FPC is in the position to identify issues, as the ones explained above, and give advice to the Bank as to identify potential sources of systemic risk.

## 5.5 Conclusion

This chapter explained the failure to rule ‘Innovation Risk’ in the UK regime of CCPs in the OTCDM. It emphasised that the safety and soundness of the OTCDM implies that regulators should consider the risk that innovation<sup>225</sup> represents to the achieving of their objectives. Innovation is certainly difficult to define. However, the discussion of this chapter started by making reference to the use of innovation to avoid the clearing obligation for certain types of derivatives. The rationale is that although the regime establishes the list of transactions that are subject to central clearing, there is a debate calling for

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[http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2015/q2prerelease\\_1.pdf](http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2015/q2prerelease_1.pdf) accessed 28<sup>th</sup> January 2016.

<sup>222</sup> *ibid.*

<sup>223</sup> Financial Services Act 2013 (Banking Reform); See Bank of England, Structural Reform. <http://www.bankofengland.co.uk/pr/Pages/supervision/structuralreform/default.aspx> accessed 28<sup>th</sup> January 2016; See Prudential Regulation Authority, ‘The implementation of ring-fencing: legal structure, governance and the continuity of services and facilities’ (Policy Statement PS10/15 May 2015) <http://www.bankofengland.co.uk/pr/Documents/publications/ps/2015/ps1015.pdf> accessed 28<sup>th</sup> January 2016.

<sup>224</sup> Chapter 3.

<sup>225</sup> ‘Financial innovation is a continuous, dynamic process that entails the creation and subsequent popularization of new financial instruments’. Delimatsis, ‘Transparent Financial Innovation in a Post-Crisis Environment’ (n 4) 159.

allowing CCPs certain level on discretion when deciding what derivatives should be cleared. As there might be market participants that are interested in avoiding the clearing obligation, one way to achieve it is to influence the decision of the CCP regarding what products should be centrally cleared. In order to avoid this situation, this research proposed that regulators can control the power that major derivative dealers might have over the governance of CCPs. This is to control the self-interest that major dealers might exert to ‘escape’ the clearing requirement, by convincing the CCP that certain clearing-eligible products ‘disguised’ as bespoke instruments, should not be cleared through the CCP. Therefore, the argument is that the regulation of the governance of CCPs could help to overcome one part of the fracture related to ‘innovation risk’.

The governance rules to be further developed by the Bank of England in the UK follow the relevant provisions of EMIR. Indeed, one of the regulatory priorities of the Bank is to design governance principles of CCPs. In line with the recent regulation on individual accountability in the UK financial services, this chapter explored the Senior Managers and Certification Regime (SM&CR). This research argues that including rules of individual accountability applicable to SMs and employees of CCPs would benefit and complete, at least partially, the governance and conduct of business regime. It will contribute to make clear that SMs and employees of CCPs are not only obliged to follow internal Codes of Conduct and Corporate Governance Rules and fiduciary duties, when appropriate, but they also must observe the rules and standards that the SM&CR imposes to individuals working in financial firms.

Although it could be assumed that the SM&CR will be applicable to SMs and employees of CCPs in the OTCDM, this research argues that it will not be automatically applicable to them. This is because it has been said that neither the FCA nor the PRA supervise CCPs. The BoE will have to clarify which is the competent regulator in this area. This is whether it is the Bank or, as is argued in this research, it is the FCA. Thus, if the appropriate regulator is the Bank, it will have to issue rules regarding the individual accountability of SMs and employees of CCPs operating in the OTCDM. If the appropriate competent regulator is the

FCA, the SM&CR will be directly applicable to all individuals who work in the CCPs by 2018.

Another area that could be solved with the design and implementation of governance rules concerns the conflict of interests that might occur within CCPs. This chapter discussed how the demutualised structure of CCPs operating in the UK puts conflict of interest issues in the forefront. In particular, the convergent interests of CCPs' owners, Clearing Members and the public interests. The argument presented in this chapter is that a regime of governance might contribute to mitigating the influence that CMs might have over the CCP to benefit their own interests. This research calls regulators to design a regime of CCPs' governance that is not limited to rule the board and risk management committees' composition and voting rights as they are broadly defined in EMIR. The CCPs governance regime should instead seek to balance the convergent interests surrounding the functioning of the CCP. Amongst other considerations, pursuing the balance of convergent interests in the CCP requires ensuring representation of all stakeholders in the governance structure. This means that the BoE should firstly delimit who has the category of stakeholder and how the composition of groups of stakeholders might vary. Such changes would need to be reflected in the board and committees' composition.

The CCP governance regime should consider the role that CCPs have as 'co-regulators'. CCPs act as 'co-regulators' by imposing market discipline. The contribution of the CCP is to promote high levels of disclosure and transparency about market participants and transactions. The level of discretion attributed to CCPs allows them to play a double role in helping regulators to achieve their objectives. The 'co-regulatory' role of CCPs requires rules that solve the internal conflict of interests, so that the CCP is free from stakeholders' influence. In this sense, some recommendations might include the limitation of ownership participation and the imposition of 'fit and proper' standards to those involved in the governance of the CCP. These standards not only promote investor protection, but also strengthen the robustness of the CCP's functioning. To sum up, if the objective is to ensure that the CCP acts as 'co-regulator' in line with the

BoE objective, then it is first important to strengthen the internal structure and governance rules of CCPs.

Finally, this chapter explored how innovation in the form of creative compliance is likely to lead some of the unintended consequences of the CCP's regime. It refers to the potential dangers coming from the innovative financial techniques OTCDM participants will use to meet the high quality collateral requirements of CCPs. It also explored how the 'innovative' use of portfolio compression diminishes the effectiveness of CCPs as managers of counterparty credit risk in the OTCDM, and its role in front of systemic risk. Therefore, the Bank of England assisted by the Financial Policy Committee, and attending to its role as macro and micro prudential regulator, is expected to oversee the potential risks that the new regulation of CCPs might bring to the stability of the system. Especially because the 'innovative' techniques explained are a form of innovation and exemplify the issues that interconnectedness between SIFIs (Banks and CCPs) brings to financial stability.

## CONCLUSIONS

This research, for the first time, critically analyses the UK regime of Central Counterparties in the OTC derivatives market. It used the risk-based approach to regulation as a method of analysis to identify the shortcomings or ‘fractures’ and advances of the regime. This work serves as a foundational discussion on the challenges that UK regulators face in designing and implementing the regime of CCPs in the OTCDM.

The regime studied in this research emerged as a result of concerns triggered by the Global Financial Crisis. The crisis put in the forefront the need for a more formal regulation and supervision of markets that could pose most prominent risks to financial stability. The OTC derivatives markets’ role within the crisis revealed market and regulatory failures that motivated regulatory reform. The priority of the post-GFC reform has been on strengthening the market infrastructure. In particular, the introduction of Central Counterparties that will provide a more efficient management of counterparty credit risks. The implementation of CCPs in the OTCDM has longstanding implications<sup>1</sup>. It represents not only a change in the structure of every transaction, but it also implies the transfer of risk to new intermediaries that are considered to be in a better position to absorb and mutualise the losses coming from participants’ default. Although the adoption of CCPs in the OTCDM is not free of shortcomings, it is argued that they increase market safety and integrity. They mitigate credit, liquidity and operational risks and contribute to reduce asymmetries of information.

The introduction of mandatory central clearing through CCPs brings benefits to the supervision of the OTCDM. The rationale is that CCPs act as co-regulators by imposing market discipline. In this sense, the Bank of England clearly stated that CCPs would become a forum for the vast majority of OTC derivatives transactions, and as such CCPs can promote high levels of disclosure about market participants and transactions. The level of discretion attributed to CCPs allows them to play a double

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<sup>1</sup> IMF, ‘Central Counterparties: Addressing their Too Important to Fail Nature’ (IMF Working Paper, WP/15/21, 2015) 4.

role in helping regulators to achieve their objectives. Firstly, the role of CCPs as ‘regulated firms’, that comply with the authorisation and recognition requirements and the provision of clearing services. Secondly, the role of CCPs in imposing minimum requirements for CMs and their clients to participate in the market. Moreover, from regulators’ perspective, one of the most attractive benefits of CCPs is that they contribute to enhance standardisation and play an active role in increasing transparency of the OTCDM.

The UK regime of CCPs in the OTC derivatives market has been designed according to the European regulation contained in EMIR. It also follows the CPMI-IOSCO Principles for Financial Market Infrastructures. The approach to regulation adopted in the UK after the GFC combines some elements of risk-based and judgement based regimes. The analysis of the thesis concludes that risk-based regulation, as is currently adopted, is a partially efficient approach to regulate Central Counterparties (CCPs) in the OTCDM. It is efficient in the sense that it allows an efficient allocation of sources, which is one of the most concerning challenges of regulators. Moreover, risk-based approach is broad enough to design and implement a regime for CCPs that contributes effectively to achieve regulators’ objectives: in this case, the safety and soundness of CCPs in line with financial stability. It is effective because, if adequately designed and implemented, it facilitates the integration of multiple perspectives of risks and uncertainties, including those of the regulators and regulated firms. The inextricably intertwined realities of risk and uncertainties expose the limits and opportunities that regulators face in the implementation of the regime.

However, the adoption of a risk-based approach to regulation also brings some shortcomings. This research identified that the UK regime of CCPs in the OTCDM is affected by two drawbacks of risk-based regimes. They are the absence of an organisational culture to implement risk-based regimes and that, as a result of the prioritization of risks and regulatory actions, these regimes create ‘manufactured risks’. These two drawbacks are exemplified by the ‘fractures’ or shortcomings presented in this thesis: The inexistence of a conduct of business regime, the insufficient legal framework underpinning CCPs’ operations, the lack of a Special Resolution Regime, and the failure to rule ‘innovation risk’.

The supervision of the Bank of England has been focused on ensuring the safety and soundness of CCPs. The objective is to ensure that CCPs' rules and policies are designed and applied to monitor, manage and mitigate risks, especially systemic risk. During the first years of the regime, the Bank progressed in the implementation of new margin models, and the enhancement of new arrangement to allocate losses. In general, the advances are focused on the areas of management of credit and liquidity risk, recovery rules, operational risk management and disclosure. Moreover, the Bank highlights that, according to the FSMA and the Banking Act 2009, it has a wide range of enforcement powers to require CCPs to provide information, commission independent reports, make on-site inspections, require changes to internal rules, and give directions.

Although this research recognises the importance of the areas that have been regulated by the Bank, it emphasises that there are other areas where supervision has not been sufficiently developed.

The first area abandoned is the conduct of business regime of CCPs. In pursuing this argument, this research considered the misinterpretation of the UK regulators' mandates. In 2013, when the UK introduced reforms to the financial regulatory architecture, the Bank of England was designated as the regulator and supervisor of financial market infrastructures, and within them CCPs. This means that the Bank would perform macro and micro-prudential regulation of CCPs and the OTCDM. It was also clearly stated that the Bank would work closely with the Financial Conduct Authority, reflecting the FCA's responsibilities for trading infrastructure and market product. A systematic interpretation of the regulators mandates leads this research to argue that, while the Bank of England carries out the prudential supervision of CCPs, the FCA supervises the conduct of business. However, in practice regulators and CCPs authorised in the UK perceive that the Bank of England is the only regulator of CCPs. The consequences of this misinterpretation imply that the current conduct of business rules, implemented by the FCA, are not applicable to CCPs in the OTCDM.

The foregoing considerations revealed that CCPs' standards of conduct are not a regulatory priority, because regulators consider it is not an area that poses a

significant threat to their regulatory objectives. This is a consequence of the prioritization of risks and regulatory actions that features risk-based regimes. In privileging the prudential supervision over conduct of business rules, regulators are breaking the balance between the two stems of the risk-based approach. This fracture also shows that a risk-based approach is not assisting effectively the supervision of CCPs in the OTCDM. This is because although the aim is to ensure the safety and soundness of CCPs, and thereby achieve the stability of the market, regulators are deliberately overlooking the fact that the robustness of CCPs should be built upon prudential as well as conduct of business rules. Thus, the argument put forward is the need to design and implement a conduct of business regime for CCPs that includes areas like Consumer Protection and Competition Rules.

Closely connected with the absence of conduct of business rules is the fracture concerning the insufficient legal framework underpinning CCPs' operations. The issue stems from the imbalance affecting the contractual relationship between CCPs and their members. The CCPs' rulebooks and complementary agreements exclusively regulate this relationship. The content of such rulebooks is exclusively and unilaterally drafted by CCPs; therefore, they have a high and limitless level of discretion to draft contractual provisions, without considering the rights of their counterparties. The concern is not limited to the existence of abusive or unfair contractual terms - it also involves the clauses limiting the liability of CCPs to the detriment of clearing members' rights. This issue reveals the need for a broader scheme of protection that would benefit Clearing Members and their clients. In particular, it calls for the recognition of a duty of care predicable of CCPs in the performance of their contractual obligations related to holding and managing clearing members' assets and positions. This research argued that the recognition of such a duty and standards of diligence would imply a regulatory reform of Section 291 of FSMA, and could be constructed under the parameters of the common law.

As noted earlier, the Bank of England has developed loss allocation and recovery rules to ensure that CCPs are sufficiently resilient. The aim of the Bank is to ensure that CCPs have in place efficient rules to allocate losses arising from Clearing Members' default and losses originating from a different cause. However, one of the pending tasks is to develop a Special Resolution regime for CCPs. This is because



although the failure of a CCP is a very rare event, it is still a possibility. The Bank of England, as the resolution authority, should have a complete regulatory framework to conduct CCPs' insolvency proceedings. The insolvency proceedings will only take place when all the recovery mechanisms have been exhausted and the CCP is not viable anymore. The advances of the Bank of England in this area are limited to the establishment of early intervention powers.

Nonetheless, the resolvability of a CCP needs to follow a comprehensive and pre-established regime that ensures that the core functions of CCPs are maintained during times of crisis. It is argued that a Special Resolution Regime of CCPs should address the efficient allocation of losses, the mitigation of fire-sales and how to ensure the continuity of services. The novel contribution of this thesis in this area is to highlight the potential shortcomings that the resolution regime for CCPs might have. It is particularly challenging to build up a Special Resolution Regime that can be articulated with the exercise of termination rights in derivatives contracts allowed by the Financial Collateral Arrangement Directive (FCAD). The possibility of bail-out CCPs and the role of clearing members as ultimate underwriters of CCPs is also considered in this discussion. Moreover, one of the measures explored in this thesis questions the suitability of implementing ring-fencing for CCPs. In this regard, the central concern is whether ring-fencing that is in essence a territorial approach to insolvency, could be coordinated with cross-border policies. The argument is relevant, because CCPs occupy a prominent and systemic position and provide services in more than one jurisdiction. The ring-fencing regime, if applicable, should consider the twin realities of cross-border arbitrage embedded in the interconnections between CCPs and other entities.

Finally, this thesis explored the role of innovation and the risk it poses to the achievement of regulatory objectives. The central argument is that CCPs are providing services in a market lead by innovation. The regulated firms' attitude towards risks and regulation is pivotal to anticipate whether they are willing to comply or if, alternatively, they will find innovative forms of compliance. The practice of creative compliance might frustrate the expected outcomes of the regime. The discussion put forward attempts to provide examples of foreseeable events of that creative compliance as a form of innovation. The multiple edges of innovation

challenge the role of regulators. However, the understanding of the dynamics of the OTC derivatives market, the conflicting interests that converge within the CCPs, and the interaction between CCPs regime with other regimes are illustrative of how innovation poses a significant risk to the achievement of regulators' objectives. As noted earlier, the regulatory solutions might be as diverse as the issues triggered by innovation. However, this research argued that the design and implementation of governance rules might contribute to solve, at least partially, the issues that stem from the conflicting interests that converge within the CCP. The development of governance rules implies the adoption of standards of conduct and questions the importance of having in place an individual accountability regime. This discussion was brought forward, because it is not clear whether the new Senior Managers and Certifications Regime (SM&CR) would be automatically applicable to CCPs by 2018. Therefore, the Bank of England is called to clarify the applicability of the SM&CR and the role of the FCA.

As the UK regime of CCPs in the OTCDM is being developed, there are some areas for future research. For instance, the design and implementation of the standard stress tests for CCPs, and the role that the progress of block chain systems might have in central clearing services.

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